

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



52109 1920  
**Harris Seed Company, Inc.**

"The Seed Service Store"

75. 44  
JAN 20 1920



SIXTH AND E STREETS

SAN DIEGO, CALIFORNIA



STECHER CO., ROCHESTER, N.Y.

ANNUAL  
**CATALOGUE and GARDEN BOOK**



We carry the Largest Stock of Seeds  
Spraying Material and Acces-  
sories in San Diego



## Winter Truck Farming

---

A San Diego Business Man said the other day, "Sometime the **TRUCK FARMER** in the neighborhood of San Diego will wake up to the **BIG POSSIBILITY** of **WINTER FARMING** in **THIS SECTION** of the **COUNTRY**.

When we can harvest crops of Peas, Lettuce, Spinach, Cabbage, Cauliflower, Celery, yes and even Cucumbers, Beans and Sweet Corn in some favored locations in the months of November, December, January and February, and place them in the Eastern markets at good prices, there is no reason why there is not big money in **WINTER TRUCK FARMING**. At the time of this writing, 1st December, a customer of ours, who has a large acreage of cucumbers just ready for the market, is at present marketing them and making great big money. It is hard to imagine cucumbers being raised out-of-doors, by the acre, in the middle of winter, but such is the case.

We carry **IN STOCK** at all times a large supply of **TRUE TO NAME, TESTED MARKET GARDEN SEEDS** of **HIGHEST QUALITY** and **GERMINATION**, and can supply you in any quantity at any time.

We realize that the **UP TO DATE** Farmer and Gardner will buy nothing but the **BEST**, and we buy our **STOCKS** accordingly. **OUR** motto being "The Best Is None Too Good."





# Harris Seed Company

*"The Seed Service Store"*



WALTER BIRCH, PRESIDENT  
E. J. GOOKINS, VICE-PRESIDENT

909 Sixth Street, between Broadway & E Street  
San Diego, California

**JANUARY 1, 1920**



Interior of Our Store at 909 Sixth Street

# Planting Chart for Vegetables

**THIS CHART** if carefully followed is a reliable guide as to what and when to plant, also quantity required. Remember that although good seed is the first requisite to success, much depends on the care given the seed after planting, soil conditions, weather, etc. We know our seeds to be as good as any sold on this coast, and we are always glad to give any information or help in the selection of seeds for your particular locality.

VARIETY	Seed for 100 ft. row.	Seed for 1 acre	Time of Planting	Put Rows Apart	Leave Plts Apart in Row	Crop Matures (in about)
Artichoke, Globe .....	2 Pkts.	12 oz. T.	October to May	5 ft.	3 ft.	2nd Spring
Artichoke Plants .....	32 Plants	3000 P.	Dec. to April	5 ft.	3 ft.	Next Spring
Artichoke Jerusalem .....	3 lbs.	300 lbs.	Dec. to May	4 ft.	3 ft.	Late Summer
Asparagus Seed .....	1 oz.	2 lbs. T.	Feb. to May	6 ft.	3 ft.	Third Spring
Asparagus Plants .....	32 Plants	11000 P.	Dec. to May	4 ft.	1 ft.	Next Spring
Beans, Bush .....	1 lb.	60 lbs.	Jan. to Sept.	3 ft.	6 in.	2 to 3 Months
Beans, Pole .....	$\frac{3}{4}$ lb.	50 lbs.	Jan. to Sept.	3 ft.	1 $\frac{1}{2}$ ft.	2 to 3 Months
Beet, Table .....	2 oz.	10 lbs.	All Year	2 ft.	6 in.	3 to 3 $\frac{1}{2}$ Months
Beet Stock .....	2 oz.	8 lbs.	Sept. to May	3 ft.	1 ft.	4 to 6 Months
Broccoli .....	1 Pkt.	4 oz. T.	Nov. to April	2 $\frac{1}{2}$ ft.	1 ft.	3 $\frac{1}{2}$ Months
Brussels Sprouts .....	2 Pkts.	4 oz.	October to May	2 $\frac{1}{2}$ ft.	1 $\frac{1}{2}$ ft.	5 Months
Cabbage, Early .....	1 Pkt.	8 oz. T.	All Year	2 $\frac{1}{2}$ ft.	2 ft.	3 to 4 Months
Cabbage, Late .....	1 Pkt.	8 oz. T.	All Year	2 $\frac{1}{2}$ ft.	2 ft.	4 to 5 Months
Carrot .....	1 oz.	4 lbs.	All Year	24 in.	6 in.	4 Months
Cauliflower .....	$\frac{1}{4}$ oz.	4 oz. T.	June to Jan.	3 ft.	2 $\frac{1}{2}$ ft.	4 to 6 Months
Celery .....	2 Pkts.	5 oz. T.	Jan. to May	3 ft.	6 in.	4 to 5 Months
Celeriac .....	1 Pkt.	6 oz.	Jan. to May	1 ft.	2 $\frac{1}{2}$ ft.	.....
Chervil .....	3 Pkts.	1 lb.	Jan. to August	30 in.	5 in.	2 Months
Chives .....	2 Pkts.	2 lbs.	Sept. to May	30 in.	5 in.	3 to 4 Months
Collards .....	1 Pkt.	8 oz. T.	All Year	30 in.	15 in.	4 Months
Chicory .....	2 Pkts.	4 lbs.	Sept. to May	30 in.	8 in.	2 to 3 Months
Corn Salad .....	1 oz.	5 lbs.	Feb. to Nov.	30 in.	8 in.	2 to 3 Months
Corn, Sweet .....	$\frac{1}{2}$ lb.	10 lbs.	March to Sept.	36 in.	12 in.	2 $\frac{1}{2}$ to 3 Months
Cucumber .....	2 Pkts.	2 lbs.	March to Sept.	6 ft.	4 ft.	2 to 3 Months
Dandelion .....	1 Pkt.	$\frac{3}{4}$ lb.	Sept. to April	30 in.	10 in.	3 Months
Egg Plant .....	1 Pkt.	4 oz. T.	Jan. to Aug.	30 in.	2 ft.	4 Months
Endive .....	1 oz.	3 lbs.	August to May	30 in.	8 in.	3 Months
Garlic (sets) .....	2 lbs.	300 lbs.	Sept. to March	30 in.	6 in.	5 to 6 Months
Horse Radish .....	70 Plants	10000 P.	Dec. to May	30 in.	18 in.	6 Months
Kale .....	2 Pkts.	2 lbs.	All Year	30 in.	18 in.	2 to 3 Months
Kohlrabi .....	1 Pkt.	4 lbs.	All Year	30 in.	6 in.	4 Months
Leek .....	$\frac{1}{2}$ oz.	4 lbs.	Sept. to April	24 in.	6 in.	4 Months
Lettuce .....	3 Pkts.	3 lbs.	All Year	24 in.	8 in.	2 to 3 Months
Melons, Musk .....	2 Pkts.	1 $\frac{1}{2}$ lbs.	March to July	6 ft.	4 ft.	3 to 4 Months
Melon, Water .....	1 oz.	2 lbs.	March to July	8 ft.	6 ft.	3 to 4 Months
Mustard .....	1 Pkt.	2 lbs.	All Year	4 ft.	2 $\frac{1}{2}$ ft.	3 to 5 Weeks
Okra .....	1 oz.	8 lbs.	April to July	3 ft.	2 ft.	3 Months
Onion seed .....	$\frac{1}{2}$ oz.	3 lbs.	Sept. to April	24 in.	5 in.	4 $\frac{1}{2}$ to 6 Months
Onion sets .....	2 lbs.	300 lbs.	All Year	18 in.	3 in.	2 to 4 Months
Onion Seed for Sets .....	2 oz.	40 lbs.	All Year	2 ft.	Drill	2 to 3 Months
Parsley .....	1 Pkt.	4 lbs.	All Year	24 in.	6 in.	3 Months
Parsnips .....	2 Pkts.	6 lbs.	All Year	30 in.	8 in.	4 Months
Peas .....	1 lb.	75 lbs.	All Year	36 in.	3 in.	2 to 4 Months
Pepper .....	1 Pkt.	6 oz. T.	Jan. to July	36 in.	18 in.	3 to 4 Months
Potatoes .....	5 lbs.	600 lbs.	Dec. to Sept.	36 in.	10 in.	2 to 3 Months
Potatoes, Sweet .....	70 Plants	10000 P.	March to July	36 in.	18 in.	3 to 4 Months
Pumpkin .....	2 Pkts.	2 lbs.	March to Aug.	10 ft.	8 ft.	3 to 4 Months
Radish .....	1 oz.	12 lbs.	All Year	18 in.	3 in.	1 to 2 Months
Rhubarb .....	2 Pkts.	4 oz.	Jan. to April	5 ft.	3 ft.	2nd Spring
Rhubarb Roots .....	33 Roots	3000 P.	Dec. to May	5 ft.	3 ft.	Next Spring
Salsify .....	1 oz.	8 lbs.	Feb. to Oct.	30 in.	4 in.	4 Months
Spinach .....	1 oz.	20 lbs.	All Year	24 in.	2 in.	40 to 65 Days
Squash, Bush .....	2 Pkts.	3 lbs.	Feb. to Oct.	4 ft.	3 ft.	2 Months
Squash, Running .....	2 Pkts.	2 lbs.	Feb. to Aug.	8 ft.	6 ft.	3 to 4 Months
Tomato, Seed .....	1 Pkt.	3 oz. T.	Feb. to Aug.	5 ft.	3 ft.	4 to 5 Months
Tomato, Plants .....	35 Plants	3000 P.	March to Oct.	5 ft.	3 ft.	2 to 3 Months
Turnip .....	2 Pkts.	4 lbs.	All Year	24 in.	6 in.	3 to 4 Months
Turnip Swede or Rutabaga .....	2 Pkts.	3 lbs.	All Year	24 in.	8 in.	3 to 4 Months

T in the quantity columns means these varieties are to be sown in hotbeds and transplanted to the field



# Useful Hints for Farmer and Planter

## SOWING TABLE FOR THE GARDEN

Seed required to produce a given number of plants, or to sow a given quantity of ground

Artichoke .....	1 oz. to 500 plants
Asparagus..1 oz. to 60 feet of drill, 500 plants	
Beans, Dwarf.....1 lb. to 100 ft. of drill	
Beans, Tall.....1 lb. to 75 hills	
Beet.....1 oz. to 50 ft. of drill	
Broccoli.....1 oz. to 2000 plants	
Brussels Sprouts.....1 oz. to 2000 plants	
Cabbage.....1 oz. to 2000 plants	
Carrot.....1 oz. to 150 ft. of drill	
Cauliflower.....1 oz. to 2000 plants	
Celery.....1 oz. to 5000 plants	
Chicory.....1 oz. to 100 ft. of drill	
Corn.....1 lb. to 150 hills	
Cress.....1 oz. to 100 ft. of drill	
Cucumber.....1 oz. to 100 hills	
Egg Plant.....1 oz. to 2000 plants	
Endive.....1 oz. to 3000 plants	
Kale.....1 oz. to 2000 plants	
Kohl Rabi.....1 oz. to 2000 plants	
Leek.....1 oz. to 100 ft. of drill	
Lettuce.....1 oz. to 5000 plants	

Melon, Water.....1 oz. to 30 hills	
Melon, Musk.....1 oz. to 100 hills	
Okra.....1 oz. to 50 ft. of drill	
Onion Seed.....1 oz. to 100 ft. of drill	
Onion, Top Sets.....1 lb. to 60 ft. of row	
Onion, Bottom Sets.....1 lb. to 75 ft. of row	
Parsnip.....1 oz. to 100 ft. of drill	
Parsley.....1 oz. to 100 ft. of drill	
Peas.....1 lb. to 100 ft. of drill	
Pepper.....1 oz. to 1000 plants	
Pumpkin.....1 oz. to 25 hills	
Radish.....1 oz. to 100 ft. of drill	
Salsify.....1 oz. to 50 ft. of drill	
Sage.....1 oz. to 100 ft. of drill	
Spinach.....1 oz. to 100 ft. of drill	
Squash, Early.....1 oz. to 50 hills	
Squash, Winter.....1 oz. to 15 hills	
Tomato.....1 oz. to 3000 plants	
Tobacco.....1 oz. to 10,000 plants	
Turnip, Early.....1 oz. to 100 ft. of drill	
Turnips, Rutabaga....1 oz. to 100 ft. of drill	

## NUMBER OF TREES OR PLANTS TO AN ACRE

Set at a regular distance apart

Distance Apart.	No. of Plants.	Distance Apart.	No. of Plants.	Distance Apart.	No. of Plants.
3 inches by 4 inches.....	522,720	4½ feet by 4½ feet....	2,150	14 feet by 14 feet.....	222
4 inches by 4 inches.....	392,040	5 feet by 1 foot.....	8,712	15 feet by 15 feet.....	193
6 inches by 6 inches.....	174,240	5 feet by 2 feet.....	4,356	16 feet by 16 feet.....	170
1 foot by 1 foot.....	43,560	5 feet by 3 feet.....	2,904	16½ feet by 16½ feet..	160
1½ feet by 1½ feet.....	19,360	5 feet by 4 feet.....	2,178	17 feet by 17 feet.....	150
2 feet by 1 foot.....	21,780	5 feet by 5 feet.....	1,742	18 feet by 18 feet.....	134
2 feet by 2 feet.....	10,890	5½ feet by 5½ feet....	1,440	19 feet by 19 feet.....	120
2½ feet by 2½ feet.....	6,960	6 feet by 6 feet.....	1,200	20 feet by 20 feet.....	108
3 feet by 1 foot.....	14,520	6½ feet by 6½ feet....	1,031	25 feet by 25 feet.....	69
3 feet by 2 feet.....	7,260	7 feet by 7 feet.....	888	30 feet by 30 feet.....	48
3 feet by 3 feet.....	4,840	8 feet by 8 feet.....	680	33 feet by 33 feet.....	40
3½ feet by 3½ feet.....	3,555	9 feet by 9 feet.....	537	40 feet by 40 feet.....	10
4 feet by 1 foot.....	10,890	10 feet by 10 feet.....	435	50 feet by 50 feet.....	17
4 feet by 2 feet.....	5,445	11 feet by 11 feet.....	363	60 feet by 60 feet.....	12
4 feet by 3 feet.....	3,630	12 feet by 12 feet.....	302	66 feet by 66 feet.....	10
4 feet by 4 feet.....	2,722	13 feet by 13 feet.....	257	.....	.....

## SEED REQUIRED TO SOW AN ACRE OF GROUND

	Lbs. to the Acre.
Alfalfa .....	20
Barley—broadcast .....	100
Broom Corn—drills .....	12
Buckwheat—broadcast .....	45
Clover, Red, alone—broadcast.....	15
Clover, White, alone—broadcast.....	10
Clover, Alsike—broadcast .....	10
Grass, Bermuda .....	10
Grass, Kentucky Blue (for pasture).....	50
Grass, Kentucky Blue (for lawn).....	150
Grass, Orchard .....	40

	Lbs. to the Acre.
Grass, Perennial or Australian Rye (for meadow) .....	40
Grass, Perennial or Australian Rye (for lawn) .....	75
Millet .....	25
Hemp—broadcast .....	40 to 50
Oats—broadcast .....	80
Potatoes—hills .....	500 to 600
Rye—broadcast .....	100
Vetches—broadcast .....	100
Wheat—broadcast .....	100
Wheat—drills .....	75

## GOOD SEED

The seed is but the embryo of the future plant. Its development depends as much upon the preparation of the soil, timely planting, watering and cultivation, as upon the seed. Good seed that will bring satisfactory results in the hands of the experienced and careful grower may fail when planted by the inexperienced or careless. If ten persons buy seed from the same package, and nine succeed in making them grow successfully, and one fails and pronounces the seed worthless, the proper conclusion would be that the seed was good and that the judgment of the one was in error.

Before condemning the seedsman, the purchaser whose seeds have failed to grow should first consider whether or not:—the season was right, the soil in proper condition, the weather favorable; that he planted neither too deep nor too shallow and that the ground was kept sufficiently moist, yet not too soggy.

All Our Packet Seeds Are Put Up By Us From Bulk Seeds.

# Vegetable Garden Calendar

## JANUARY

Prepare your hotbed and plant Tomato, Egg Plant, Pepper, Sweet Potato, etc. Top dress all beds not yet spaded with a good dressing of stable manure or pulverized Sheep manure. Plant Lettuce, Radish, Beets, Cabbage, Cauliflower, Broccoli, Kale, Endive and Celery. Also Cucumbers for early market should be planted in frames, of course protected by cloth covering and hot-bed heat.

## FEBRUARY

Plant Lettuce, Radish, Peas, Cabbage, Turnips, Carrot, Beet, Spinach, Swiss Chard, also Potatoes in favored places. Put out more Sweet Potatoes (they should of course be covered in hotbeds during the cold weather). Plant Earliana Tomatoes, or any other early variety, and keep protected during bad weather. Give all the sunshine possible so they will make a strong growth.

## MARCH

This is the big month of the year for planting as almost everything in the list may be planted this month. All vegetables should now be planted for early crops. Transplant your Tomatoes to the field if large enough, also Sweet Potatoes, Cabbage and early Peppers—the latter should be watched carefully against frost. Plant a few early Squash and cover at night. Also a little Golden Bantam Corn. Plant Celery.

## APRIL

Set out your Sweet Potato plants, Tomatoes, Cabbage, Cauliflower, Peppers, etc., watering a little if weather is hot and dry. Make your early planting of Beans this month. Sow Celery, Tomatoes, Peppers and Egg Plant. Also plant Cucumbers.

## MAY

Plant liberally of Beans and Corn, Tomatoes for general crop. Cucumbers, Squash, field Pumpkins, field Corn, Melons, etc.

## JUNE

Hill up all growing crops and stick Pole Beans. During the summer months constant cultivation should be the rule. Keep a fine dust mulch as it helps to retain the moisture in the soil. Plant Casabas, and a succession of vegetables planted last month.

## JULY

Cultivate well between rows. Sow seed for succession as recommended for May and June, also Cabbage, Cauliflower, Kale, etc., for fall.

## AUGUST

Plant second crop of potatoes. Sow Cabbage, Cauliflower, and Spinach for main crops and others for succession. This is the time to plant Bermuda Onion seeds for harvesting in January, February and March. Plant Peas for the holidays.

## SEPTEMBER

Plant liberally of Lettuce and for this season we recommend Los Angeles Market, Onions, Radish, Turnips, Beets, Carrots, Swiss Chard, Cabbage, Cauliflower, Earliana Tomatoes for winter crop, Spinach. Plant largely of Stratagem and Yorkshire Hero Peas. These will be ready about the holidays. Early Long Yellow Six Weeks and Ventura Wonder Wax Beans will also bear before frost.

## OCTOBER

Transplant Tomatoes, Cabbage, Cauliflower, etc., to field, Celery will need hilling. Sow Cabbage, Cauliflower, Beets, Carrots, Onions, Spinach, Swiss Chard, Radish and Turnips, Lettuce, etc. Parsnips, Salsify, and in fact all of the root crops should be put in this month.

## NOVEMBER

Plant Onions, Radish, Turnips, Beets, Swiss Chard, Cabbage, Cauliflower, etc.

## DECEMBER

Plant Peas, Carrots, Turnips, Radish, Beets, Spinach, Swiss Chard, Onions, Lettuce, Leek, Rhubarb, Kale, Collards, Cabbage, etc.

N. B.—The foregoing list is only a general suggestion as to the proper time to plant the various seeds and should not be adhered to absolutely. Conditions differ so greatly in different localities in San Diego County that it would be impossible to make a list that would be equally applicable to all localities. It should be borne in mind that most unexpected results are sometimes obtained by planting at what would be considered the wrong time of the year.

Quality is the Keynote of Our Business.



# VEGETABLES

## ARTICHOKES

### Alcachofa

Artichokes are cultivated for the edible bud, which resembles a giant thistle. The plants want a very rich soil and plenty of moisture. Plant in boxes in January and the young plants transplant in March or April.

**Large Green Globe.** The most popular variety. Buds large, globular, deep green, with tinge of purple at base. Pkt. 10c, oz. \$1.10.

**Jerusalem or Tuberousrooted Artichoke.** Entirely distinct, and grown exclusively for their large potato-like roots, which are valuable for feeding hogs, the yield often exceeding two tons per acre. The tubers are also edible, and are delicious when well cooked. Write for prices.

## ASPARAGUS

### Espargago

**Culture.** Being a perennial asparagus should be planted where it will not be disturbed. If it is planted only for private use, the row or rows should be established at one side of the garden patch, where it will not be in the way when cultivating the other parts of the garden. Asparagus requires a deep, rich, cool soil heavily manured and thoroughly tilled. Plant seed in beds or rows cover about 1 inch. Keep watered and weeded first year, and if too thick in bed thin out to two or three inches apart, and you get better roots. After one year's growth they can be transplanted to rows three to four feet apart and one foot apart in the row. Two year old plants are preferable for transplanting, they will then produce the following Spring. Cultivation should be done early in the Spring before the shoots start and in the fall after "cutting" is over. Cut the foliage off as soon as it begins to turn yellow and burn it so as to prevent rust getting started and also to get rid of the seed which if allowed to get onto the ground will be coming up all over the patch and be a nuisance. Cover with heavy dressing of manure during winter. It takes about 7,000 plants to set an acre or about two pounds of seeds. An ounce will produce 300 good plants.

**Palmetto.** This is the standard variety grown for general garden purposes, especially for shipping. Shoots are light green and tinted slightly with pink. Pkt. 5c, oz. 10c.

## BEANS

### Frijoles

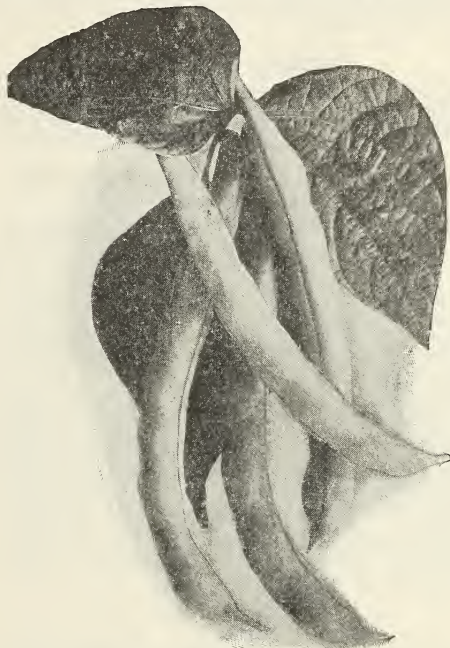
Write for quantity prices on all Beans and add parcel post charges to catalogue prices. See parcel post table inside cover.

**Culture.** Beans respond very readily to good soil and cultivation. A light, rich, well-drained loam is the most desirable. The use of manure is advisable, but should be used sparingly as it might make the plant run too much to vine. There is no plant more sensitive to cold and wet than the bean. We therefore advise not to plant until the ground has become dry and warm. The largest returns will result in planting in drills from 2 to 3 feet apart. Cover the seed one and one-half inches deep and thin the young plants 3 to 6 inches apart in the row. If planted in hills, about 2 feet apart each way.

### KEEP THEM COMING

For rotation, plant at intervals of from one to two weeks. The plants until time of blossoming should have frequent shallow cultivation, but any mutilation of the roots by cultivation after the plants come into blossom is likely to cause the blossoms to blast and so cut off the crop. Cultivation should always be very shallow and it is useless to expect a crop from a field so poorly prepared as to need deep stirring after planting.

vation should always be very shallow and it is useless to expect a crop from a field so poorly prepared as to need deep stirring after planting.



Stringless Green Pod Bean.

## Bush, Green Pod

**Burpee's Stringless Green Pod.** Of robust growth, producing beautiful, long, straight, round-podded snaps, which are absolutely stringless. By reason of its unusual hardness, extreme earliness, and wonderful productiveness, this is one of the most popular of the green-podded snaps, either for market or family use. Pkt. 10c, lb. 35c, 10 lbs. \$2.50.

**Canadian Wonder.** Flatpod; of good flavor; not stringless, but tender. A great favorite with gardeners for winter or late fall planting. Very luxuriant and continuous bearer. Pkt. 10c, lb. 35c; 10 lbs. \$2.75.

**English or Broad Windsor.** The celebrated Broad bean of England. A rich bean of marked flavor; used green, shelled like the Lima; grows on a straight, stiff stalk about 2 feet high. Pkt. 10c, lb. 25c.

**1000 to 1 or Early Refugee.** A very early variety; medium length pods; fleshy; round, seeds pink, marbled with red. Pkt. 10c, lb. 35c; 10 lbs. \$2.50.

**Early Mohawk.** A splendid variety; hardy and very early. Should be given trial culture. Oval pods. Pkt. 10c, lb. 35c; 10 lbs. \$2.50.

**Long Yellow, Six Weeks.** A strong, rapid grower and matures quickly. Flat pod; very desirable for early forcing. Pkt. 10c, lb. 35c, 10 lbs. \$2.50. Write for quantity price.

Satisfied Customers Sustain Our Reputation.



## Bush, Wax Pod

**Golden Wax.** One of the most popular in cultivation; pods are long, flat and golden yellow; seed white, mottled with two shades of purplish red. Pkt. 10c, lb. 40c, 10 lbs. \$3.25.

**Prolific Black Wax.** Vines medium sized, very vigorous and hardy. Pods medium length, borne well up from the ground, curved, cylindrical, fleshy and of a clear, creamy white color. Pkt. 10c, lb. 40c, 10 lbs. \$3.25.

**Ventura Wonder Wax.** Sometimes called **Davis White Kidney Wax.** A great variety for the market grower. Very early and hardy, straight, long, yellow flat pods, white seed. A great yielder. Good also for white bean to shell. Pkt. 10c, lb. 40c, 10 lbs. \$2.50.

## Result Getters

On the first appearance of rust on your beans, or other plants (easily known by its reddish appearance) spray with **Bordeaux Mixture**, or **Lime and Sulphur** solution. It will save your crops.

## Climbing or Pole, Green Podded

### Frijole de Bejuco

**Improved Kentucky Wonder, or Old Homestead.** The most popular of all pole beans, especially in this section. Vines are vigorous in growth, the pods are immense, often obtaining a length of nine or ten inches, and borne in large clusters. Bright green, very solid, meaty, tender and stringless when young, assuming a saddleback shape with age, being broader in width than depth, and becoming somewhat irregular and spongy as the beans ripen. Dried beans are long, oval and dun color. Pkt. 10c, lb. 35c, 10 lbs. \$2.50.

**Scarlet Runner or Arbor Bean.** The well-known and old-fashioned climber, having bright scarlet, pea-like flowers. It not only holds its place as a flower, but the pods when young are of fine quality for cooking. Seed large, bright scarlet, heavily blotched with purple. Pkt. 10c, lb. 40c.

**White Seeded Kentucky Wonder.** An early prolific sort. The pods are long, tender, and absolutely stringless, and of fine flavor. The beans themselves when dry are excellent for baking. Pkt. 10c, lb. 35c, 10 lbs. \$2.50.

## Lima Beans

### BUSH

Lima beans are a nourishing and delicious bean, either when used as a green shelled bean or when mature and dry, and are especially adapted to Southern California, where they are grown in their greatest perfection.

**Fordhook Bush Lima.** In order to get the best results, plant one foot apart in rows  $3\frac{1}{2}$  feet apart. Although this bean has been offered for several years, it is comparatively a new variety. It is an improvement over the well known bush lima because it is more prolific. It is a strong grower, more resistant to blight, and is more profitable to grow for the market because the pods remain green. This is a great advantage to the peddler, retailer and shipper. It has received universal praise. We recommend it to our customers for both home and market gardens—for the home garden because of its excellent flavor and productiveness; for the market gardener because it is demanded by the shipper. Pkt. 10c, lb. 45c, 10 lbs. \$3.50.

**Burpee's Improved Bush Lima.** This bean differs from the old bush variety in being ten days earlier. Will yield one-fourth more tonnage per acre. The pods contain four and five beans that are larger and thicker than the old bush lima. Where the Improved Bush Lima is known the old bush variety is no longer in demand. Pkt. 10c, lb. 40c, 10 lbs. \$3.50.

**Monstrous Bush Lima.** A typical product of the climate and soil of Southern California. It is the largest bean in existence, and the best, having a flavor exactly like the little wild chestnut of the east. No home gardener will be without this bean after having once grown and tasted it.

This is surely the bean for the south. Plant six feet apart in rows eight feet apart, allowing

only one stalk to grow in a hill. The vines completely cover the ground, although planted eight feet apart. Pkt. 15c, lb. 50c.

## Pole Lima

**King of the Garden.** One of the best and most popular main crop varieties. It is medium early and has very long pods,  $5\frac{1}{2}$  to  $6\frac{1}{2}$  inches long, which are well filled with four or five good-sized beans. The pods are very straight and handsome, and the fine, hardy vines bear abundantly. Pkt. 10c, lb. 35c, 10 lbs. \$3.00. Write for quantity price.

## Commercial Beans

**The Blackeye.** This bean is always profitable to the grower because it yields 1500 to 2500 pounds per acre without irrigation, and on almost any kind of soil. It is a good cover crop and soil renovator. The beans find ready market at a fair price, but usually below that of other varieties. Rabbits will not eat the Blackeye. Write for prices.

**Lady Washington and Navy.** These two varieties go hand in hand. Both are small, white beans, but the Navy is slightly smaller and is often distinguished by being called the Small White, while the Lady Washington is called the Large White, yet the largest is a scant half-inch long, while the Navy is scarcely more than one-fourth inch long. The Navy is rust resistant. 20c lb.

**New Mexico Pinto Bean.** The bean that made New Mexico famous and added much to the wealth of that state. 1917 crop in New Mexico alone estimated at 50,000,000 pounds. Write for prices.

**Pink, Mexican Red, Red Kidney.** All three of these varieties are good table beans. The **Pink** is grown more largely because it is more profitable to the grower and finds ready sale. The **Mexican Red** is the popular bean in Mexico, and should be grown more largely here. As a table bean it is excellent, both as a dry bean and as a green shell bean, and will become more popular as it becomes better known. The **Red Kidney** is an old-time favorite and commands a higher price than other varieties. It is more hardy and more rust-resistant. The pods are long and straight, bearing six to eight beans. It is particularly easy to thresh, yet does not pop in the field. Write for prices.

**The Soja or Soy Bean.** Highly valued by some on account of its high protein content. Used also as forage and as a soil improver. Write for prices.

**Tepary.** A small white bean similar to the Navy. Plant the Tepary with the ordinary drill that you would use for the Navy, but drop them farther apart, because it grows a low, spreading vine ordinarily about two feet in diameter, but when irrigated it spreads as much as four feet in diameter. We advise sowing fifteen pounds per acre.

The Tepary is immune to common bean diseases. Write for prices.

**Garvanza and Lentil.** These are not beans, yet they go hand in hand on the market reports with beans, and we have listed them with our commercial beans.

**Garvanzas.** Planted in April, should be ready to harvest in August. It will endure light frost with little injury. They grow a low branching bush, bearing the pods in the foliage about one foot above the ground. They are prolific, yielding twenty to thirty bean sacks per acre, and always commanding a higher price than beans. Cultivate the same as beans.

**Lentils.** Should be planted from January to May. They are nearly as hardy as the Winter Vetch, which the vine very much resembles. The Lentil commands a price nearly double that of beans, and will net the grower about the same value. Cultivate the same as peas. Write for prices.

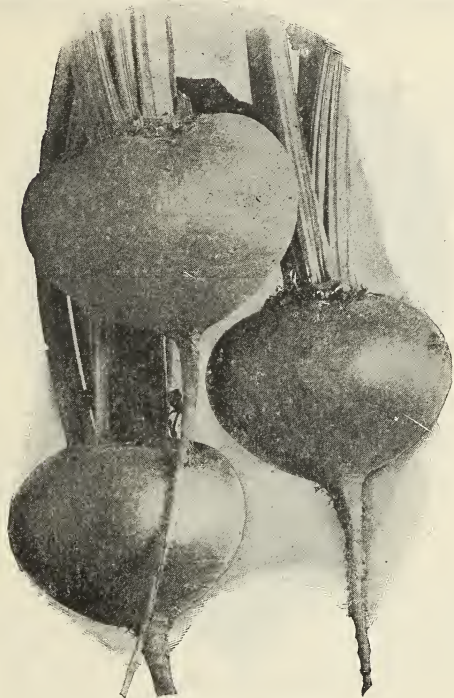
Inoculate Your Beans and Peas With Mulford Culture



## TABLE BEETS

### Remolacha

**Culture.** Beets may be planted all the year round where the temperature does not fall below 25 degrees. Sow the seed one inch deep in well prepared, moist soil in rows eight or ten inches apart, or on ridges same as lettuce. Drill twelve pounds of seed per acre. Thin out to one plant every three inches, and transplant the discarded plants in any convenient spot about the garden. The Egyptian is a small, dark red, flat, smooth variety. It is sweetest and best for the table. Irrigate about every two weeks, unless the nature of the soil is such that more frequent irri-



Crosby's Egyptian Beet.

gation is found to be necessary. Mulch the soil after each irrigation. Beets are ready for use in ten weeks and continue in prime condition for another ten weeks. Two ounces of seed for 100 feet of row.

**Blood Turnip.** An extra selected stock of Blood Turnip, having larger, coarser top and root than the Detroit Dark Red and requiring a considerably longer time to mature. Excellent for summer and autumn use. Pkt. 5c, oz. 15c, lb. \$1.25.

**Crosby's Egyptian.** A turnip-shaped variety with dark-red flesh showing zones of a lighter shade; short, dark leaves; a good table variety and very early. The market gardener's favorite. Pkt. 5c, oz. 15c, lb. \$1.25.

**Detroit Dark Red.** A splendid deep red turnip beet, with very small, upright tops, early maturing, and makes nice, round, finely-shaped roots. This is one of the finest of all for early market or home use. Pkt. 5c, oz. 15c, lb. \$1.25.

## Result Getters

Lime applied to the soil at the rate of 10 lbs. per 100 sq. feet corrects acidity, loosens up stiff adobe soils, binds together light, sandy soils, kills or discourages many insects as cutworms, etc., and releases foods for immediate assimilation by growing plants.

## Sugar Beets

Add Parcel Post charges to Catalogue price. See postal table, page —

Are also used for stock feeding. Sow from October to May, in drills three feet apart. Thin out to stand half foot apart in rows. It is sometimes desirable to grow smaller roots as they contain a larger percentage of dry feeding matter, in which case plant closer together. Keep well cultivated.

**Lane's Imperial Sugar.** One of the most popular varieties for stock, and one which will succeed well throughout this latitude or farther south. Grows to a large size, is more like Mangel Wurzel in character, but the flesh is sweeter and more tender; in fact sometimes used for table. Pkt. 5c, lb. \$1.25, 10 lbs. \$10.00.

**Klein Wanzleben Sugar Beet.** This is considered the most desirable variety for sugar. It is also desirable for feeding to stock. The roots, while rather shorter than some varieties, are thick in diameter, and yield an immense crop on rich land. The largest diameter is at, or just below, the surface of the soil, then tapering rather quickly. Pkt. 5c, lb. \$1.25, 10 lbs. \$10.00.

## Stock Beets or Mangels

**Golden Tankard.** Recommended on account of its milk-producing qualities. It is of rich yellow color, sweet flavor, and yielding heavy crops of fine-shaped roots. Pkt. 5c, lb. 80c, 10 lbs. \$7.00

**Giant Half Sugar.** A cross between a Mangel and a Sugar Beet. Is almost as large as a Mangel and contains nearly as much sugar as a Sugar Beet. The roots are a light bronze-green, grown well out of the ground and are very easily harvested. Pkt. 5c, lb. 80c, 10 lbs. \$7.00.

**Mammoth Long Red.** The largest of all the mangels and the heaviest cropper. Skin is red; flesh white, zoned with red. This variety produces a larger amount of good feed than any other beet, and is recommended as superior to all others. Pkt. 5c, lb. 80c, 10 lbs. \$7.00.

## SWISS CHARD

Stem and leaves used for greens; also largely used as a green food for chickens.

A rank grower. Root not edible.

**Giant Lucullus.** A variety with very thick, heavy leaf stems. Pkt. 5c, oz. 20, lb. \$1.50.

**Large Ribbed White.** Sometimes called Spinach Beet. Used for greens for chickens by cutting the stem and leaf, which are also very ornamental. It resembles an ornamental beet top, but has no edible root. May be used as a salad. Pkt. 5c, lb. \$1.50.

## Suggestions and Warnings

1. Do not plant close, give vegetables enough room to grow.
2. Never water any newly planted plot until after the seed comes up, but have soil good and moist when planting.
3. Irrigation is always preferable over sprinkling.
4. Cultivation as soon as possible following each irrigation is essential.
5. Try to keep all growing stuff growing continuously, a check in growth almost equals a failure.
6. Always have ground good and wet where you transplant any plant to permanent location.
7. Be sure to protect newly transplanted plants with paper cone or something for two or three days. Remove cover in evening.
8. We recommend Nulife Fertilizer.
9. To keep succession of vegetables for home use plant seed now, then repeat planting two to three weeks hence. Don't let your garden run out.
10. Early varieties means a quick maturing variety. Late varieties means it requires longer to mature.

Do not misconstrue these designations and think they mean to plant only early or late.

"Plant a Big Home Garden."



## BROCCOLI

### Brocoli

Should be treated the same as cauliflower, which it resembles. In fact it is practically a coarse summer cauliflower, more divided in the head, grows larger and taller and is hardier and easier to grow.

**St. Valentine** (A pure white strain) is the best. Our seed is of the English type grown extensively in the north. Pkt. 10c, oz. 60c.

## BRUSSELS SPROUTS

### Berzade Bruselas

Culture same as cauliflower or cabbage.

**Improved Half Dwarf.** The standard variety. Grows to two or three feet high and the stem has from 30 to 40 small heads, which are broken off and cooked like cabbage. Pt. 5c, oz. 30c.

## CABBAGE

### Col Repollo

#### A Few Rules for Planting and Growing Cabbage Successfully

Don't have the soil in the seed bed as rich as the field to which the cabbage is transplanted, or the plants will be starved after transplantation.

Don't seed too thickly or force the growth too rapidly, or the plants will grow too tall, slim and tender, and the growth be more seriously checked by adverse conditions.

Root deeply to resist drought. When setting out, plant up to the first leaf-stems. Supply plenty of moisture and manure.

**Cabbage Plants.** We keep a constant supply of the leading varieties of cabbage plants during the greater part of the year. Price per dozen 15c, per 100 \$1.00; for larger quantities, price on application.

**Copenhagen Market.** Undoubtedly an extra fine cabbage for all conditions; grand for market growing and unequalled for home gardening. Its heading qualities are sure, quality the best. Pkt. 10c, oz. 85c.

**Danish Ballhead.** This is the most popular of all late varieties for winter use. Because of its great solidity of head, and its unequalled keeping and shipping qualities, Danish Ballhead has supplanted nearly all other varieties for winter use. The heads are the right market size—not too large, very hard and heavy, weighing a fourth more than other varieties of equal size, the leaves are fine grained and deliciously tender. Pkt. 10c, oz. 85c.

**Early Dwarf Flat Dutch.** Head large, oval or nearly round, solid, crisp and tender, maturing with early summer. Every plant will form a hard head fit for market. Pkt. 10c, oz. 60c.

**Early Jersey Wakefield.** Most gardeners depend upon it for the bulk of their extra early crop. Heads conical, very compact, solid and of excellent quality. Pkt. 10c, oz. 70c.

**Perfection Drumhead Savoy.** A variety that is much prized in Europe, and also by those who are familiar with it in this country. It is very sweet and crisp, and always tender. Heads medium sized and fairly compact. Pkt. 10c, oz. 85c.

## Winnigstadt Cabbage

Winnigstadt is no novelty, but we have a splendid stock of seed, and it is such a meritorious cabbage that we feel like pushing the popularity of this variety. The cabbage growers have long since recognized its fine shipping qualities. Our strain of seed is the very best and we can recommend this variety both for market and home use. Pkt. 10c, oz. 65c.

## Red Cabbage

**Mammoth Large Red.** A good variety. Pkt. 10c, oz. \$1.00.

## Chinese Cabbage

**Culture.** Grow it as you do lettuce; transplant 10 inches apart in rows 12 inches apart.

Boiled with beef or pork it is excellent, having a much more pleasing flavor than cabbage. The inner leaves make better cold slaw. Pkt. 10c, oz. 50c.

## Special Notice

Owing to conditions, which may arise, beyond our control, such as crop shortage or failure, etc., the prices in this catalogue are subject to change without notice. As a rule and whenever possible, however, we expect to fill orders at prices listed.



Oxheart Carrot

## CARROTS

### Zanahoria

**Culture.** Although carrots are hardy after the plant is established it is difficult to get a good stand unless the soil is well prepared and of such a nature that it will not bake, for the seeds are small and slow to germinate.

Carrots are sown the year around in deeply tilled, sandy, loam soil. Sow one inch deep in rows 15 to 20 inches apart. Thin out to 4 inches apart when plants are two inches high. Keep well cultivated and irrigate every week. Two and a half pounds will plant an acre. One ounce to 150 ft. of drill.

**Chantenay.** A good general purpose variety; five or six inches long; stump rooted; about three inches thick at top; tapering slightly; bright orange color. Pkt. 5c, oz. 15c, lb. \$1.25.

**Danver's Half Long.** The best variety and the most largely used, not only for stock raising, but for table use as well. The perfect type is about eight inches long, and about two and a half inches wide at the shoulder, tapering to a sort of half point at the bottom. Color is a bright orange-scarlet. It is a very heavy cropper. Pkt. 5c, oz. 15c, lb. \$1.25.

**French Forcing.** The best variety for forcing. Globe shaped; color, bright orange. Pkt. 5c, oz. 15c, blk \$1.50.

"Use Nulife Fertilizer"

**Long Orange.** One of the best long varieties. A heavy cropper, growing entirely under the ground, preventing the crown from becoming tough and woody. Pkt. 5c, oz. 15c, blb. \$1.25.

**Oxhart.** A short, heavy, thick variety, heavy yielder, and very desirable especially for heavy soils. Pkt. 5c, oz. 15c, lb. \$1.25.

## STOCK CARROTS

**Large Yellow Belgian.** Is similar to the above, but with a light orange color; said to be richer, but does not keep so well. Pkt. 5c, oz. 15c, lb. \$1.10.

**White Belgian.** Raised exclusively for stock. Grows to be very large size, and is easily gathered. Pkt. 5c, oz. 15c, lb. \$1.10.

## CAULIFLOWER

### Califlor

The culture of califlower is much the same as that of cabbage, but is adapted to growth in cool weather only. It is a delicious vegetable, and is especially popular with the home or market gardener. Plant the seeds in beds in June, for fall crops, and transplant about the first of August. For winter crop, seed may be sown in December, and the plants set in place any time during February.

**Early Snowball.** The best and most popular early variety grown. There is a vast difference in the strains of this variety offered, but what we offer is the best stock. Those who have had trouble with cauliflower should try this Snowball. It will make uniformly fine heads. Pkt. 25c, oz. \$4.50.

## Giant Danish Dry Weather

The merits of this first-class Cauliflower are recognized by increasing sale every year. The crop is two to three weeks later than the Earliest Erfurt. Heads are pure white and of fine quality. The plants are less affected by dry weather than other variety, but respond very well to the usual irrigation. Pkt. 25c, oz. \$4.50.

## Early Snowflake

This type should be planted from the first of June to the first of July. We, however, do not recommend the planting of cauliflower too early because of the possibility of its heading prematurely, and climatic conditions also have considerable to do with the success of the grower. In this early strain we have one that has proved very hardy under early climatic conditions. Price: Pkt. 10c, oz. \$2.00.

## Result Getters

**For the Cabbage Worms 3x Dusting Mixture is an effective remedy against this destructive pest, prevalent wherever cabbages are grown. Try it once and you will never be without it.**

**For Aphis—Spray with Black Leaf 40. Directions: One tablespoonful to two gallons of water. Add about 1/8 lb. of soap.**

## Medium Snowflake

Plant from May fifth to July fifth. This is the money-maker for the market grower as it becomes ready for the market at the time when prices are best. Its truiness to type has endeared it to the experienced grower and he can confidently depend upon it. The market gardener demands this type. Price: Pkt. 10c, oz. \$2.00, lb. \$20.00.

## CELERY

### Apio

Sow the seed in frame or open ground. When about three inches high, transplant about four inches apart in well pulverized soil to make the plants more stocky; water and protect until well rooted; then transplant in furrows or trenches

about 8 or 10 inches deep, four inches apart in the trench. To blanch, draw the earth to the roots from time to time as the plants grow, thus filling up the trench. The soil should be thoroughly enriched by the liberal use of well rotted manure. One ounce of seed will produce about 5,000 plants.

**Golden Self-Blanching, or Paris Golden.** The most popular variety in use, especially for early crop. The plant is naturally golden-yellow (both stem and leaves), but needs to be blanched to make it brittle and fit for table use. Forms a rather small bunch. Pkt. 5c, oz. 60c, lb. \$6.00.

**French Grown Seed.** Pkt. 20c, oz. \$1.50, lb. \$15.00.

**White Plume.** An excellent variety for fall and winter use. It is easily blanched; requires but slight banking. Pkt. 5c, oz. 30c, lb. \$3.00.

**Celeriac. Large, Smooth Prague.** Has a turnip shaped bulb with a celery flavor. Pkt. 5c; oz. 35c.

## A LITTLE HINT TO THE NEWCOMER

You have purchased your land, but you are all at sea about season. What to plant and when to plant it is a puzzle; just read this catalog, and you will find the answer. But that is not all; you want more advice. Well, just write us, stating the nature of your ranch with regard to the following conditions,—sandy, loam, adobe, swamp, mesa, foothill, irrigation, acreage, and proximity to market. Are you a gardener or rancher? We may advise you to plant beans in the fall during September and November. When they are marketed plant potatoes or corn (as your conditions may suggest). When this crop is harvested plant potatoes again and casabas. Thus you will have three crops within twelve months. Such information is often a surprise to the newcomer, but the great Southwest is full of surprises and great possibilities.

As soon as you have learned the trick, you are one of "us" and your letters home will cause your friends to say: "There is another California prevaricator." You just can't make them believe it until they come.

## CHAYOTE

### Sechium edule

**Culture.** Plant fruit in the open ground after it has sprouted, covering with four inches of earth and protect from frost. Water sparingly until vine is about twelve inches high; then gradually increase until hot weather, when it will require copious watering.

**Chayote.** A delicious vegetable vine, fine for Pergolas, some vines bearing from 150 to 300 in one season. Large sized, pear-shaped fruit, which is used like squash, but is of much finer flavor. Planting season from November 1 to February. 20c each. Per doz. \$2.00.

## COLLARDS

### Caba

**Georgia.** A tall, loose form of cabbage, grown in the south as a substitute for cabbage, and which may be successfully grown in summer. The leaves, when cooked, are tender, delicate and of fine flavor, 5c pkt, 20c oz.

Add parcel post rate to catalogue price. See table inside front cover.

## CORN

### Sweet or Sugar

Corn requires rich loam soil, and thorough cultivation. It may be planted in many localities where frost is not common, any time from February to September, and enjoy roasting ears nearly the whole year. Plant in hills from 2 1/2 to 3 feet apart in rows 4 feet apart. Thin to two or three stalks to the hill to insure good-sized ears.

A Little Good Seed Brings Big Results.



**Black Mexican.** Kernels bluish black when ripe, but white when ready for cooking; is very sweet and tender, and a leading favorite. Pkt. 10c, oz. 35c, 10 lbs. \$2.75.

**Country Gentleman.** The best for family use. Has long, white cob, closely filled with long, white kernels, irregularly on cob. It is very finely flavored and sweet. Pkt. 10c, lb. 35c, 10 lbs. \$2.75.

**Extra Early Adams.** The earliest of all corn, and the first to make ears. Plant dwarf and stocky and grains of fair quality. It is really a field corn, but is used as sweet corn on account of its extreme earliness. Pkt. 10c, lb. 25c, 10 lbs. \$1.75.

**Golden Bantam.** An extra early dwarf variety. Ears of medium size, thickly set with rich, yellow kernels of a most delicious flavor. This variety has become a general favorite on account of its earliness, hardness and extra fine quality. Pkt. 10c, lb. 35c, 10 lbs. \$3.00.

**Oregon Evergreen.** This is without doubt the best sweet corn ever grown, and is a great favorite among market growers in this section. It is very productive, bearing long, well-filled ears, and is of a particularly fine flavor. Many varieties of sweet corn do not thrive as well in California as in the east, and it has sometimes been said that good sweet corn is not to be had here. This variety, however, seems particularly adapted to our local conditions, and produces ears of the very finest quality. Pkt. 10, bl. 30c, 10 lbs. \$2.50.

**Stowell's Evergreen.** A good bearer of large, well filled ears of best quality. The stalk is a rank grower, and useful for dairy fodder. A favorite with market gardeners. Pkt. 10c, lb. 35c, 10 lbs. \$2.75.

## FIELD CORN

### Mais

**Big Jim Corn.** Kernel is of typical yellow dent shape, very long and broad, set deep in the cob, thereby giving a very small cob considering the exceptionally large diameter of the ear. The ears will average 11 to 12 inches, a good many running 12 to 14, producing one or two of these large size ears on each stalk, the stalk growing 12 to 14 feet in height. We consider Big Jim the largest grain and largest ear of corn that has ever been produced anywhere, and we are supported in this belief by Eastern corn farmers. We particularly recommend this corn to the hog raisers as something they have been looking for for a long time.

Our seed is from selected stock grown for three years in California. Price: 1lb. 25c, 10 lbs. 22¼c, 25 lbs. 20c, 100 lbs. 15½c per lb.

**Eureka Ensilage.** A large stalk with a profusion of leaves which makes it the most desirable for ensilage. Lb. 15c, 10 lbs. \$1.10. Write for quantity price.

**Hickory King.** Kernel white; largest grain and smallest cob of any white corn known. Lb. 15c, 10 lbs. \$1.00.

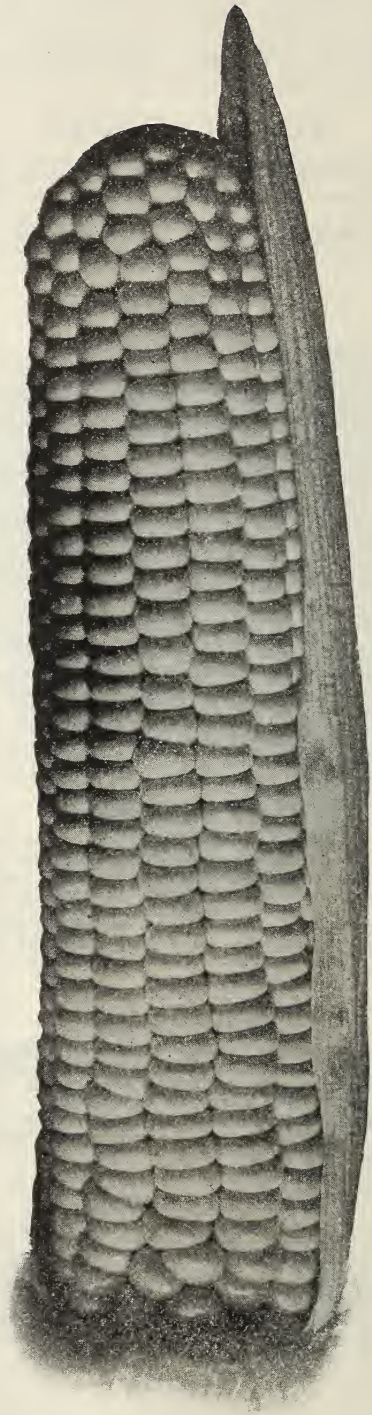
**King Phillip.** A early corn. Long ears. Yellow grains. A hard flint and a satisfactory variety for this section. Lb. 15c, 10 lbs. \$1.10.

**Leaming.** The best yellow corn on the market. A rank growing, leafy stalk makes it valuable for fodder as well as grain. Early; kernels long and deep; cob small. Lb. 15c, 10 lbs. \$1.10.

**Mexican June Corn.** The corn for the arid Southwest as has been proven by several years' trial of various government experiment stations throughout the country. This corn is quite largely grown in the Imperial Valley, Arizona, New Mexico and Texas.

It is chiefly valued as a corn that will grow and produce a good crop under arid conditions. Price: 1 lb. 15c, 10 lbs. \$1.25.

**Orange County Prolific.** For Ensilage as well as corn. This White Dent variety is strictly a California product, and will surpass in amount of fodder or grain any other variety we have ever offered. It will readily yield one hundred and ten bushels of grain per acre, and when grown for ensilage it will yield more than thirty tons of ensilage per acre. Price: 1lb. 15c; 10 lbs. \$1.25. ensilage per acre. Price: 1 lb. 15c; 10 lbs. \$1.25.



Oregon Evergreen Corn

A Corn Planter Saves Time and Seed.



## Pop Corn

**Golden Champion.** Absolutely the best pop corn in the world. Large, smooth, yellow ears; very prolific. Lb. 30c.

**White Rice.** A very popular variety; very prolific; small ear; kernels long and sharp pointed. Lb. 30c.

## CRESS

**Mastuerzo**

**Culture.** Grown in rows sown rather thickly. Grows up again after cutting. Used in salads and for garnishing.

**Fine Curled (Pepper Grass).** Quick growing; leaves finely cut and feathery like a good parsley; growth dwarf and compact; ornamental, crisp, and pungent; very refreshing. Pkt. 5c, oz. 15c.

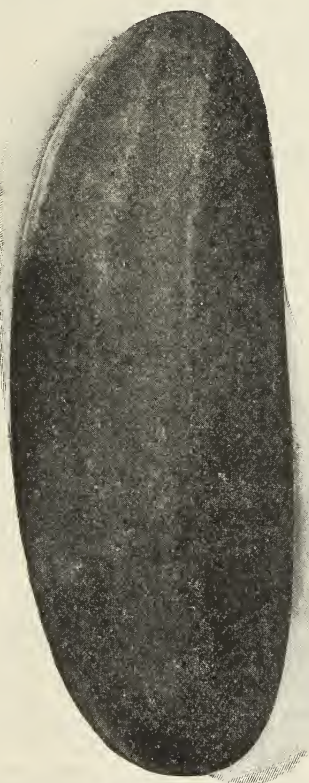
**Water Cress.** Highly esteemed as a salad during the spring and fall. Also used as a garnish for meats during the winter. Seed may be started readily in pans or boxes of very moist earth, and the young plants, transplanted to shallow water. Pkt. 10c, oz. 35c.

## CUCUMBERS

**Pepino**

**Culture.** Plant six to twelve seeds in hills four to six feet apart. Get the seeds into damp soil about one inch. Rich, well watered soil is necessary to produce well formed cucumbers. One ounce of seed will plant 40 hills. Two pounds to the acre.

**To control Aphis spray with black Leaf 40 as directed on can.**



Davis Perfect Cucumber

**Arlington White Spine.** A rich, dark-green variety, turning white when ripened. The fruit is about 7 inches long when in marketable condition and very straight and even shape. Is early and good for forcing and out-of-door culture. Pkt. 5c, oz. 15c, lb. \$1.25.

**Davis Perfect.** This cucumber has been a favorite for late spring and early summer planting. The fruits are eight to ten inches long, dark green and very attractive. It is also extra good for hothouse used. We especially recommend this variety for general use, both for the home and market garden. Pkt. 5c, oz. 20c, lb. \$2.00.

**Improved Long Green.** Dark green, firm and crisp, 12 to 16 inches long. Very extensively grown. Pkt. 5c, oz. 20c, lb. \$2.00.

**Japanese Climbing.** This sort grows quickly, climbing poles or trellis, thus taking up very little room in the garden. The fruits are of good size and of fine flavor. Pkt. 5c, oz. 15c.

**Klondyke.** A favorite variety among our market gardeners. It is an improved strain of the famous White Spine. When suitable to ship the fruits average about 2 inches in diameter and 7 inches long, very dark green, striped with light green about one-third the length from the blossom end. The flesh is waxy, white, crisp, and of excellent flavor. Pkt. 5c, oz. 15c, lb. \$1.25.

**Gherkin, or West India Gherkin.** An extremely small fruited variety, grown exclusively for pickles. Pkt. 10c, oz. 25c.

## Lemon Cucumber

This is a very nice sub-acid variety, and considered superb as a salad. The fruit is small and in appearance similar to a lemon. Very prolific. Pkt. 10c, oz. 25c.

## Result Getters

**Don't sow your seeds too deep. Plant small seeds as Radish, Turnips, etc., and those of similar size ¼-inch deep. Peas, Beans, etc., from 1 to 2 inches deep. Keep moist. Irrigate, if possible, and do not sprinkle.**

## EGG PLANT

**Berengena**

This is a vegetable that should be more largely grown. People who have eaten it will always call for it, as it has a rich flavor all its own that is fine. Plant and tend the same as tomatoes, and it is just as easy to get a crop.

**Black Beauty.** A very early variety; rich purple black in color; one of the best market varieties. Pkt. 10c, oz. 70c.

**New York Egg Plant.** New York is an early variety of the large oval-shaped, deep purple kind that tastes surprisingly like oysters when fried, and is of an indescribably delicate and alluring flavor when stewed. Pkt. 10c, oz. 75c, lb. \$7.50.

## ENDIVE

**Endivia**

Salad vegetable, which is very popular for winter use. Sow the seed in late summer and thin the plants to six inches apart. When quite well grown, tie the outer leaves at the top, thus blanching the inner leaves and heart. Use from December to April.

**Broad-leaved Batavian.** Leaves broad, light green; best for soup. Pkt. 5c, oz. 20c.

**Green Curled.** The most universally used variety, and a very attractive plant. Pkt. 5c, oz. 20c.

## KALE

**Breton Col**

A species of cabbage forming a mass of leaves which are cooked as greens. Can be grown all the year round.

Plant a Home Garden for Pleasure and Profit.

**Jersey Kale.** A tall variety with smooth leaves. Especially used for feeding chickens. Pkt. 5c, oz. 15, lb. \$1.50.

**Tall Curled Scotch.** A hardy variety growing about 2½ feet high, making a beautiful plant. Pkt. 5c, oz. 25c, lb. \$2.50.

**Thousand Headed Kale.** Excellent for the table and for poultry greens. Pkt. 5c, oz. 15c, lb. \$1.50.

## KOHL RABI

*Colinabo*

A plant forming a solid bulb entirely above ground, bearing short leaves. The bulb is the edible part and when cooked resembles a turnip, and should be sown and treated in the same manner.

**Early White Vienna.** The most desirable variety. It is very early and has small tops. Pkt. 5c, oz. 30c.

## LETTUCE

*Lechuga*

**Culture.** Have the soil well pulverized and moist. Sow the seed in drills twelve to eighteen inches apart and not over half inch deep. Do not allow the seed to get dry after being sown. When the plants are two inches high thin to about eight inches, or transplant. The transplanted plants will mature two to four weeks later than those grown direct from seed.

Well watered, rich loam soil well worked and kept free from weeds insures a fine, brittle lettuce.

**California Cream Butter.** This is a favorite lettuce; of a rich, creamy yellow; stands the summer heat better than the other varieties and forms a very hard head. Pkt. 5c, oz. 10c, lb. \$1.25.

**Iceberg.** Large, curly, light green leaves, slightly tinted with red at the edges. Delicious in flavor. The gardener's favorite for summer, as it heads well in the hot weather. Sow from April till August. Pkt. 5c, oz. 25c, lb. \$2.50.

**Improved Hanson.** Heads grow to remarkable size, resembling cabbage. This is a general favorite for home or market use. Pkt. 5c, oz. 20c, lb. \$2.00.

**Los Angeles Market.** Has well been called the **Lettuce King of the West.** Because of its large, solid white heads it is the favorite with the market gardeners who use it almost exclusively for fall and winter planting. Plant any time from September to April and you will have the best and sweetest lettuce grown. No winter garden should be without it. Write for prices.

**New York or Wonderful.** A large, solid heading variety, very dark green outer leaves, but pure white inside. This is a favorite for winter but should not be planted in the summer. Sow from September till April. Write for prices.

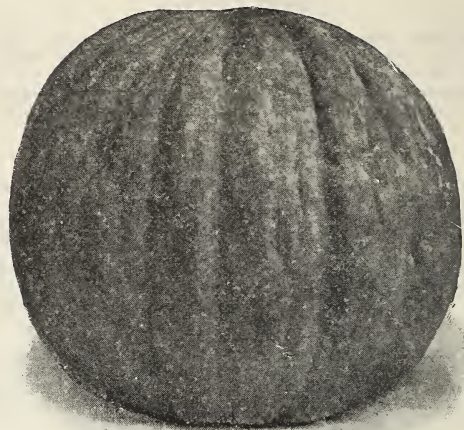
**Paris White Cos or Romaine.** The best of the Cos or celery varieties. Form a long, narrow head, leaves large and thick. Well folded head which blanches quickly. Crisp, tender and of fine flavor. Very popular with our foreign population. Pkt. 5c, oz. 15c, lb. \$1.50.

## Loose Leaved Varieties

**Early Curled Simpson.** A favorite early sort; large, loose head. Pkt. 5c, oz. 10c.

## Chicken Lettuce

A new feed for chickens. Yields more than Kale. Does not make a head, but sends up a stout stalk, 3 to 4 feet high, just loaded with leaves. Economical to grow for when cut it starts again and again. It is unexcelled for poultry or rabbit feed. Pkt. 10c, oz. 15s, lb. \$1.50.



Improved Hybrid Casaba

## MUSKMELON

*Muscate*

For general culture, in hills five feet apart each way. No crop is more benefited by high state of fertility and cultivation. Plant when danger of frost is over and after the third leaf appears thin to two strong plants each hill. This will leave sufficient plants to thoroughly cover the ground when full grown. They should have plenty of water, especially after fruiting begins. One ounce of seed to 100 hills.

**Burrell's Netted Gem.** A fine strain of Rocky Ford cantaloupe. Has a small seed cavity; rich and solid meat. Is well netted, of uniform size and has no superior among muskmelons. Flesh salmon colored. Pkt. 5c, oz. 15c, lb. \$1.50.

**Emerald Gem.** A salmon fleshed variety of remarkably good quality and flavor. Fruit medium size, round, slightly flattened at the ends. Skin thick and only slightly netted. Ripens close to rind. Pkt. 5c, oz. 15c, lb. \$1.50.

**Extra Early Hackensack.** An early variety; green fleshed and very delicious. Fruit round and very thick meat. A general favorite. Pkt. 5c, oz. 15c, lb. \$1.25.

**Mission Bell Cantaloupe.** A truly splendid melon, largely raised in the Imperial Valley. The flesh is a full salmon color even up to the very rind, and is of unsurpassed flavor, bearing a high percentage of sugar. The rind is heavily netted and the melon is large than medium size. Mission Bell is a vigorous grower and early bearer, and a splendid keeper, both on the vine and after it has been picked. For an all around family melon, here is a cracker jack; and it is an equal favorite with the market gardeners. You can't beat the Mission Bell. Pkt. 10c, oz. 40c, lb. \$4.00.

**Osage.** Large melon, about three times the size of Rocky Ford. With its well netted, dark skin, smooth salmon-colored flesh of a superb rich flavor, it stands high with growers everywhere. Pkt. 5c, oz. 15c, lb. \$1.50.

**Pineapple** has been the leading muskmelon on the local market for several years and will, no doubt, hold that position for some time, as it is certainly one of the best melons for size, shape and appearance yet produced, and when raised under proper conditions is of fine texture and flavor. Pkt. 5c, oz. 15c, lb. \$1.50.

**Rocky Ford.** Golden Lined. A famous cantaloupe. The universal favorite of the market gardener. Pkt. 5c, oz. 15c, lb. \$1.50.

**Tip Top.** Selected stock. A melon we recommend to every lover of this luscious fruit and to every gardener who grows for the market. It is a yellow fleshed melon of the very best qual-

All Our Packet Seeds Are Put Up By Us From Bulk Seeds.



ity; every melon produced, big or little, early or late in the season, is a good one. They are sweet, juicy, of finest flavor, edible to the very rind. It is a strong grower and a heavy yielder, and of handsome appearance. Pkt. 5c, oz. 25c, lb. \$2.25.

**Honey Dew.** A new melon and a great favorite with both the market gardener and in the home garden. Every melon is a good one. Flesh is light green and as sweet as honey. The rind is light green or silvery-grey in color, smooth as an egg and hard as the rind of a winter squash. A good shipper, is good right off the vine and will keep for months. Undoubtedly one of the best melons on the market today. Pkt. 10c, oz. 25c, lb. \$2.50.

## CASABA VARIETIES

**Genoa or Italian Winter Melon.** Dark green rind turning to yellow as the melon ripens. The flesh has a fine texture, spicy aroma and delicious flavor. Pick when yellow shows through the green, giving the melon a dull gray color. Keep in a cool, dry place until it begins to soften, when it is ready to eat. Does best on damp land. Sow from April till August. Pkt. 10c, oz. 25c, lb. \$2.50.

**Golden Beauty.** This Melon is very similar to the Winter Pineapple except that it has a golden yellow rind. A fine keeper and shipper. Pkt. 5c, oz. 30c, lb. \$2.75.

**Improved Hybrid.** The most popular of all the Casabas, being raised almost exclusively by the market gardeners on account of its good keeping and shipping properties. About as large as a large Hackensack muskmelon, dark green rind, and delicious white flesh. Sometimes three inches thick. Do not fail to plant this excellent melon. Pkt. 5c, oz. 25c, lb. \$2.50.

**Santa Claus.** The rind has the appearance of the mottled Pomegranate Muskmelon. The shell is hard and about one-eighth of an inch thick. Its flavor excels anything in the melon line. Plant April 1st to June 1st. Pick when the green turns to bright yellow. Put away until slightly soft. Pkt. 10c, oz. 25c, lb. \$2.50.

**Winter Pineapple.** A large, late melon of unique appearance, corrugated skin, green flesh of pronounced pineapple flavor. Melons do not ripen on the vines. Flavor is greatly improved by being stored in a cool place. Pkt. 5c, oz. 25c, lb. \$2.50.

## Result Getters

Use fertilizer. In California, where there is no "resting period", frequent fertilization is absolutely necessary to secure continuous results. **NULIFE** (Nuvida) Fertilizer contains all the elements required in proper proportions to produce a healthy luxuriant growth.

## WATERMELON

**Zandia**

**Culture.** As soon as the weather becomes settled, about the first of March, select a rich, sandy loam soil which has been plowed deep and well harrowed. Plant 6 to 10 seeds one or two inches into moist soil, in hills 10 to 15 feet apart each way. When young plants show character, thin out to 2 or 3 best plants in each hill. Keep your ground well cultivated and free of weeds. The best flavored melons are grown without irrigation. One ounce to 50 hills, 2 lbs. to an acre.

Apply Tobacco Dust or slacked lime before the plants come up to keep beetles away.

**Chilian or Cannonball.** This superb melon has practically superseded all other watermelons in Southern California, both for market and home use, and this favor we think is rightfully placed, as it has the good points of all the other melons and some possessed by none others. It is quite round, dark green, rind exceedingly thin but hard, and is a good shipper. A deep crimson clear through to rind and of delicious flavor. Pkt. 5c, oz. 15c, lb. \$1.00.

**Black Seeded Chilian.** Is earlier and sweeter, but will average smaller and will not remain in bearing so long as the white seeded variety. Pkt. 5c, oz. 15c, lb. \$1.25.

**Black Seeded Angeleno.** A top notch melon; big producer, excellent shipper, oval shaped and fine color; medium size to large; pick only when green shades to gold. A prime favorite with all. Pkt. 5c, oz. 20c, lb. \$2.00.

**Klondike.** Pasadena's favorite. A novelty of recent introduction. One of the sweetest and most prolific melons. Seeds one-half as large as in other melons. Although not a good shipper, good for local consumption. Pkt. 10c, oz. 25c, lb. \$2.50.

**Green Seeded Citron or Pie Melon.** An oblong, light green melon with a very hard rind, used for stock feeding. Pkt. 5c, oz. 10c, lb. 75c.

Buy "Hall's Garden Helps" for 75c; the best garden book sold.

## MUSTARD

**Mostaza**

**Culture.** Sow the seed in drills early in the spring and at frequent intervals throughout the summer to secure a constant supply of fresh greens. Mustard is hardy and is easily grown. One ounce will sow fifty feet of row.

**Giant Southern Curled.** Large variety forming a great mass of the beautiful leaves, which are ruffled and finely curled on the edges. Hardy, vigorous, highly recommended. Pkt. 5c, oz. 10c, lb. \$1.00.

**Chinese.** The leaves are twice the size of the ordinary White Mustard, while the flavor is sweet and pungent. Per pkt. 5c, oz. 25c, lb. \$2.50.

## MUSHROOM SPAWN

**Seta**

Mushrooms can be grown in any dark room or cellar where the temperature can be kept from 60 to 70 degrees. From some old pasture or coral, procure good, rich soil and add twice the amount of fresh horse manure. Mix this compound well and prepare a bed, say, four feet wide. Put down a thin layer, pounding it down hard, and go on until you have a bed twelve or eighteen inches thick. As soon as the temperature of the bed falls to about 50 degrees the spawn may be inserted in pieces about the size of a walnut, about two inches deep and six inches apart. Cover with loamy soil about two inches deep and beat it down evenly and firmly. Finish off with a covering of clean hay about a foot thick, and the work is done. If the temperature is right, in six or eight weeks you may expect mushrooms. The beds will continue bearing about thirty days. After the first crop is gathered, spread over the bed an inch of fresh soil. Moisten with warm water and cover with hay as before. The main conditions in mushroom growing are proper and uniform temperature and very rich soil.

**Pure Culture American Spawn.** This Spawn is made in America from selected Mushrooms grown under cultivation. Such Spawn is fresher than the English, which must be thoroughly dried before its long journey; the growth of American Spawn is therefore quicker and stronger than the imported. Price, 35c per brick.

## OKRA

**Quimbombo**

**Culture.** Soak the seeds over night in warm water and plant in warm, moist loamy soil. Do not wet the bed again until the plants are up. Keep well cultivated. One ounce will plant 100 hills. Four pounds to one acre. Give each plant twenty-four inches each way.

**Perkins' Mammoth.** Plant dwarf; very productive. Produces beautiful long, slender, green pods which remain tender a long time. A choice variety. Pkt. 5c, oz. 10c, lb. 75c.

**White Velvet.** This distinct and beautiful new Okra was originated in Georgia. The pods are very large, perfectly smooth, never prickly, round; not ridged or square as in other okras. Pkt. 5c, oz. 10c, lb. 75c.

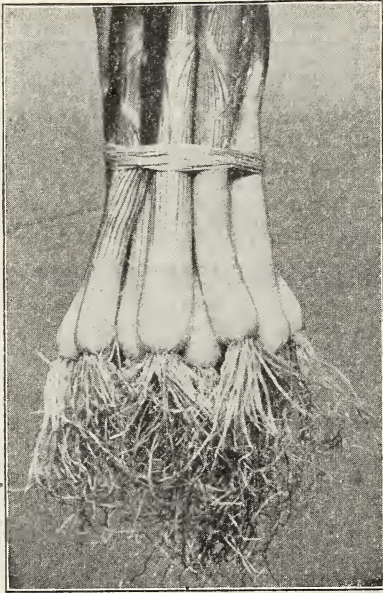
Spray Early and Often—It Pays.



## ONIONS

### Cebolla

**Culture.** The most common method of culture is to drill seed thick in the rows quite shallow and rows from 14 to 20 inches apart. After plants are as large as pencils thin out to about three to five inches, according to the variety, transplanting those taken out to about the same distance, after cutting back the tops and roots. Or they can be grown thickly in beds and transplanted to rows. Can be sown any time of the year, and really there is no excuse why fresh onions cannot be had every day in the year. For early onions in the Spring, plant sets during the Fall, which mature much more quickly than from seed. Beware of cheap quotations on this seed, as much inferior stock with poor germination is offered, some many years old. Our stock is fresh and of very highest quality and germination.



Green Bunching Onion

**Australian Brown.** An early and very hardy variety. Does especially well in this country. Should be planted early on low, moist ground to get the best results. Skin is thick and the color is rich brown. It is the best keeper of the onion family. Pkt. 5c, oz. 25c, lb. \$2.50.

**Crystal White Wax.** A large white onion of the Bermuda type. Very early and mild in flavor. Excellent shipper and keeper. Pkt. 5c, oz. 50c, lb. \$5.00.

**Great Green Bunching.** One of the best onions for use as a green onion. If left in the ground to mature will also make large, dry onions. Is not a multiplier onion and should not be confused as such. Pkt. 5c, oz. 40c, lb. \$3.50.

**Prize Taker.** A very large globe-shaped variety with light, yellow skin and white flesh of mild flavor. It produces heavy crops. Is a good keeper and popular as a market variety. Fair specimens often weigh from two to three pounds. Pkt. 5c, oz. 25c, lb. \$2.50.

**Red Wetherfield.** The best known and most widely used red variety. In shape it is flattish, but thick, with very firm flesh. Is hard and an excellent keeper as well as a heavy cropper. The color is a bright purplish-red. Pkt. 5c, oz. 25c, lb. \$2.50.

**Southport White Globe.** A pure white globe-shaped variety. Forms handsome hard onions with wax-like, pearl-white flesh. Is used a great

deal for green onions owing to the clear, white stem. Pkt. 5c, oz. 35c, lb. \$3.50.

**True Spanish Onion.** One of the large Spanish types of very mild flavor, nearly globe shape, color white tinged with yellow. Very popular in the south. Pkt. 5c, oz. 50c, lb. \$5.00.

**White Bermuda.** A very early variety; almost exclusively grown for market in Southern California, Arizona and Texas, where it is sown in the fall and harvested in the spring. It is mild and of particularly fine flavor. The color is a pinkish straw and its shape is flat. Pkt. 5c, oz. 35c, lb. \$3.50.

**White Portugal or Silver Skin.** A beautiful white onion of good shape and mild flavor. It is early and very superior for both family and market use. Pkt. 5c, oz. 35c, lb. \$3.50.

**Yellow Globe Danvers.** This onion is the standard winter sort in many markets. The shape is almost globe form and the bulbs are quite large, with thin necks, ripening down well. The skin is a fine brown, orange yellow, while the flesh is pure white, solid and of good quality. Pkt. 5c, oz. 25c, lb. \$2.50.

## ONION SETS

We are always headquarters for Onion Sets, White or Brown. Write for prices.

## PARSNIPS

### Chirvia

**Culture.** Work your soil well to depth of at least a foot. Sow from September to following May in drills 15 inches apart, covering  $\frac{1}{2}$  inch deep. When well up, thin out to 5 or 6 inches in the row. The seed is slow to germinate, hence should be sown in soil that holds moisture well. One ounce to 200 feet of row. Five pounds to an acre.

**Hollow Crown.** The most popular and best variety for all purposes. Skin smooth and white, and flesh tender, while the root grows eighteen to twenty inches long. The best part of it is contained in the first eight inches from the top. It is particularly fine, smooth and regular. Pkt. 5c, oz. 15c, lb. \$1.50.

We carry in stock at all times during their season Onion Sets, Horseradish Roots, Rhubarb Roots, Cabbage, Cauliflower, Kale, Tomato, Pepper and Sweet Potato Plants, etc.

## PARSLEY

### Perijil

Requires rich, moist soil. Used for garnishing dishes of meat or is cooked in soups. A few plants in the garden will yield sufficient for a family if the leaves are cut often and the plant is not allowed to go to seed. Sow the seed in drills early in the spring, using one-fourth of an ounce to 100 feet.

**Champion Moss-Curled.** Vigorous compact growing variety; excellent for garnishing and flavoring; also a handsome decorative plant; leaves fine and crisp, resembling moss; a most popular sort for the market and home garden. Pkt. 5c, oz. 15c.

## PEAS

### Chicoroso guisantes

Write for quantity prices on all Peas, and add Parcel Post charges to Catalogue Prices. See Parcel Post table, page inside front cover.

## Home Garden

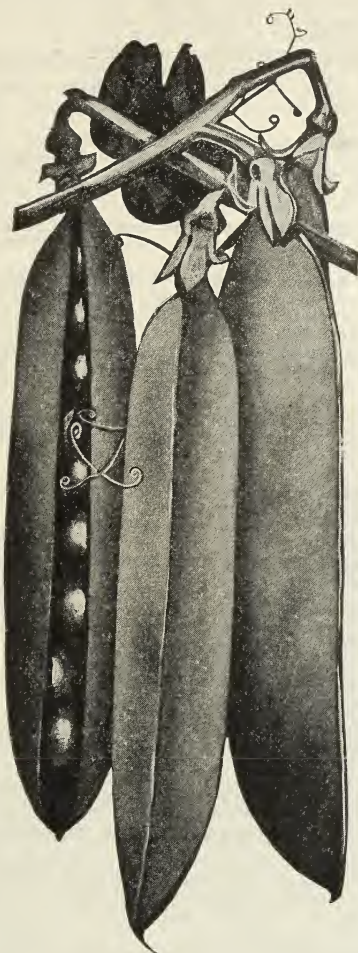
For the home garden we recommend Blue Bantam, to be planted for very early peas, and if they can be trellised, the Tall Telephones for later crop. If they cannot be trellised, plant Admiral, or any other of the late varieties offered here. All are good.

**Culture.** Peas are very susceptible to soil and climate. Within the radius of a few miles from San Diego, and in one locality or another peas may be grown every month of the year.

Use Arsenate of Lead and Dry Lime and Sulphur.



In a thermal zone plant peas from September 1st to February 1st, and in lowland from January 1st to September 1st. In summer months, from May to September, plant  $1\frac{1}{2}$  inches deep in heavy soil and more deeply in sandy soil. From December to April plant not more than one inch deep. The object of this is to have the seed deep enough to lie in moist earth, and shallow enough to get warmth from the sun. Never irrigate after planting peas until they come up. Irrigate before planting, but do not plant until the soil is tillable.



Admiral or Senator Peas

Peas will rot in soil that is too wet, especially during the winter months. They will stand a great deal of frost and cold weather until they bloom, but after they bloom a heavy frost will destroy the pods, and if cool enough will kill the vines. Many planters sow one hundred pounds of seed per acre, but sixty pounds of seed per acre drilled in rows and well cultivated will produce larger pods and more peas per acre; besides there will be less mildew. Put the rows north and south for winter planting to give them as much sun as possible.

At the first appearance of mildew, spray with the best sulphur obtainable, and do the spraying in the morning. If your soil is sandy it would be well to inoculate the seed with Nitrogen producing Bacteria, preferably Farmogerm.

## Carloads of Green Peas

**Market.** Every Christmas day every household within the United States may have on the table green peas grown in Southern California, right fresh from the vines.

Hundreds of acres are each year planted in September for northern and eastern consumption. This crop is ready for shipment from the latter part of November, and a continuous supply is maturing until April.

**American Wonder.** The earliest of all wrinkled peas. Of dwarf habit, growing from 9 to 12 inches. Pkt. 10c, by express or freight, lb 35c.

**Blue Bantam.** A very large podded pea of low growing habit. The vine is one and a half feet high, with an abundance of well-filled pods. It is unequalled for combination of extreme earliness, superb quality and unusual productiveness. Lb. 35c, 10 lbs. \$3.00.

**Gradus, or Prosperity.** This is the earliest large podded pea in cultivation. The peas are of the most delicious flavor. Pkt. 10c, by express or freight, lb. 35c, 10 lbs. \$3.50.

**Admiral or Senator.** A comparatively new pea to Southern California. Medium growth, branches heavily and abundant producer. The pods are decidedly curved. The peas are the sweetest of any variety grown here. A good shipper and very popular with the growers and dealers. Lb. 35c, 10 lbs. \$3.00.

**Stratagem.** A semi-dwarf variety with large leaves and large pods. The peas are dark green, wrinkled, and of good quality. The strain we offer is selected and carefully rogued. Lb. 35c, 10 lbs. \$2.75.

**Telephone.** A fine, tall variety; immensely productive. Pkt. 10c, by express or freight, per lb. 35c, 10 lbs. \$3.00.

**Yorkshire Hero.** The good market pea in this section. Abundant cropper and excellent in quality. Pkt. 10c, lb. 35c. By express or freight, lb. 35c, 10 lbs. \$2.75.

**Dwarf Gray or Sugar.** (Edible pods). Of extraordinary yielding qualities. Unsurpassed as an edible pod variety. Height 2 feet. Pkt. 10c, lb. 50c.

## PEPPERS

### Pimiento

**Culture.** To propagate pepper plants, more than ordinary heat is required. Should therefore be sown either under glass or in a prepared bed with an under layer of fresh horse manure, to produce the required heat. Sow the seed in the bed about March 1st and when about six inches high, transplant. Keep well watered, and in cultivating, draw the earth toward the plant, hilling up slightly.

## A Word About Sowing Seeds

Many seeds are small and the germination weak, therefore sow them very shallow, often not more than one-eighth inch deep. This is because the germ or sprout must have air and light. If this is denied by too deep sowing, it dies before it reaches the surface.

In order to assist small or weak seeds to grow, it is advisable to plant plentifully, because the many seeds will give strength to raise the soil where one could not do so.

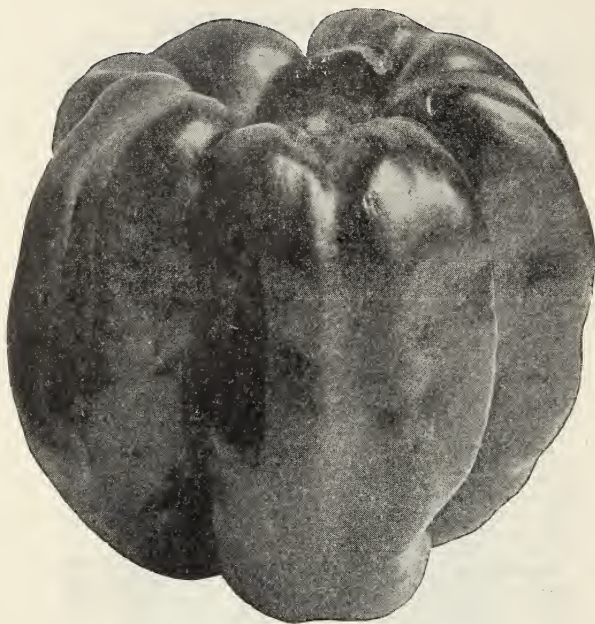
This advice applies particularly to beet and melon seeds, but is applicable to all small seeds. It is easy to thin out the surplus plants. A good general rule is to plant seeds to a depth equal to from three to five times their diameter.

**Burpee's Chinese Giant.** The largest of the Bull-nose type. Fully twice as large as the popular Bell. Very mild, thick meat with large cavity for stuffing. Pkt. 10c, oz. \$1.00, lb. \$10.00.

**Anaheim Chili.** This is the chili so well known locally. One of the most profitable crops for the gardener. Bears pods from six to nine inches long in great profusion. Pkt. 5c, oz. 40c, lb. \$4.00.

For Aphis (Green Fly) Spray with Black Leaf "40".





Chinese Giant Pepper

**Pimiento.** A medium sized, smooth pepper which is rapidly growing in favor. Thick, heavy flesh of a mild, delicate flavor. For stuffing it is unequalled on account of its smoothness and attractive appearance. Delicious in salads or creamed like onion, very good when eaten raw like an apple. Pkt. 5c, oz. 50c, lb. \$5.00.

**Mexican Chili.** The pepper that has made the tamales of Mexico famous is becoming very popular in the Southwest. It is a medium size, pear-shaped pepper, and turns bluish black when dried. Pkt. 5c, oz. 40c, lb. \$4.00.

**Chile Bolita or Piquin.** A very hot, round chili pepper used in sauces and for pickling. Pkt. 10c, oz. 60c.

## POTATOES, SEED

We can supply in their season, choice seed of standard varieties. Prices on application.

## PUMPKINS

### Calahaza totanera

All the vining plants are sensitive to frost and cannot be planted while there is yet danger of freezing. Any well cultivated, moderately rich soil is suitable for pumpkins. Plant in hills from six to eight feet apart each way, five or six seeds to the hill. When well started, thin to three plants. One ounce of seed will plant 50 hills, and two pounds to the acre.

**Common or California Field.** The well known stock pumpkin. Fruit is variously colored in yellow, drab, red, green and orange, also varies in size, but is usually large. Easily grown and a heavy cropper. Seed varies in color, shape and size. Pkt. 5c, oz. 10c, lb. 75c.

**Connecticut Field, or Jack O'Lantern.** A fine variety for dairy ranchers, adding much to the quality and quantity of the milk and butter; an excellent keeper and can be strongly recommended. Pkt. 5c, oz. 10c, lb. 75c.

**Cashaw or Crookneck.** Productive, color light cream. A good keeper; fine for pumpkin pie, sweet in flavor. Per pkt. 5c, oz. 10c, lb. 75c.

**Large Cheese, or Kentucky Field.** A very large, flattened variety about two feet through. When ripe the flesh is a rich cream color. Quality fine. Pkt. 5c, oz. 10c, lb. 75c.

**Sugar or Boston Pie.** A small, handsome variety, and very popular. The skin is a deep orange yellow; flesh fine grained and sweet in taste. Famous in Boston as a pie pumpkin. Pkt. 5c, oz. 10c, lb. \$1.00.

## RADISHES

### Rabanito

Radishes can be successfully raised any time of the year, selecting sunny spots in winter and shady nooks in the heat of summer. Succeed best in soft, moderately rich garden soil not over moist or too heavy. Sow in drills. One ounce of seed will sow about 50 feet.

**Chinese Rose Winter.** A bright scarlet winter variety. About four inches long and stumpy-rooted. Like Chinese White Winter; only red colored and two weeks earlier. Pkt. 5c, oz. 15c, lb. \$1.50.

**Crimson Giant Turnip.** Twice as large as any other turnip-shape variety; does not get hollow or pithy; flesh white, solid, crisp and mild flavor. Excellent for forcing in open ground. Pkt. 5c, oz. 15c, lb. \$1.50.

**Early Long Scarlet.** The best known and most popular variety. Pinkish color; tight and firm. Pkt. 5c, oz. 15c, lb. \$1.50.

**Early Scarlet Turnip.** A valuable variety for forcing or outdoor culture. Is a small turnip-shaped variety, and in color entirely crimson. Pkt. 5c, oz. 15c, lb. \$1.25.

**French Breakfast.** A fine early variety, olive-shaped; scarlet body with white tips. Pkt. 5c, oz. 15c.

**Iceberg.** The finest white radish. Long, slender, pure white roots which remain mild and crisp until they grow large; they mature early and are regarded by many as the best radish grown. Pkt. 5c, oz. 20c.

**Japanese Summer.** A long, white summer variety attaining a length of twenty-four inches. Very tender, mild and of excellent flavor; always finds a ready market. Pkt. 5c, oz. 25c, lb. \$2.50.

**Japanese White Winter Myashige.** This is the long white radish seen on the fruit stands and vegetable wagons in the winter. Grows from 18 to 25 inches in length and 3 to 4 inches in diameter. The flesh is solid and tender, very sweet. Plant from September to March. Pkt. 5c, oz. 25c, lb. \$2.50.

**Scarlet Turnip White Tipped.** One of the most popular and attractive short varieties. It is globe shaped, bright rose-carmine with bottom and tip clear white. Stems and leaves small. Very valuable for forcing as well as for the garden and market. Pkt. 5c, oz. 15c, lb. \$1.25.

## ROSELLE

### "QUEENSLAND JELLY PLANT"

An annual cultivated for its fruit, which is used for making jelly and jam. Sow in early spring. Grows rapidly, resists drouth and is also very ornamental. Per Pkt. 10c, oz. 60c.

## SALSIFY—Vegetable Oyster

### Salsify blanco

**Culture.** Sow the seed early in the Spring in drills one foot apart and one inch deep, thinning out plants to 4 inches. It succeeds best in well enriched soil. One ounce of seed for 50 feet of drill.

**Mammoth Sandwich Island.** A larger and superior variety, mild and deliciously flavored. Pkt. 5c, oz. 30c, lb. \$2.50.

## Special Notice

Owing to conditions, which may arise beyond our control, such as crop shortage, or failure, etc., the prices in this catalogue are subject to change without notice. As a rule, and whenever possible, we expect to fill orders at prices listed.

For "Cudly Leaf" on Peach Tees Use Dry Lime and Sulphur.



## SPINACH

### Espinaca

**Culture.** Sow in drills one foot apart, and for succession, every two weeks, as it grows thin out for use, keeping clean of weeds. It grows the year round in California. One ounce of seed for 50 feet of drill. Ten pounds to the acre.

**Bloomsdale.** Large green thick savory crumpled leaves, grows luxuriantly, producing twelve to fifteen tons per acre. Throughout the East and South, this variety is used more extensively than any other. Try it here. Pkt. 5c, oz. 10c, lb. 75c.

**Broadleaf Prickly.** A splendid fall or winter sort, also does well planted in the spring. Quick growing, with large dark green leaves. The favorite with market gardeners for winter planting. We have no hesitation in recommending this as the main crop spinach. Pkt. 5c, oz. 10c, lb. 90c.

**Long Standing.** This is a good sort for market gardeners because it is slow to shoot to seed, and the quality is equal to the best winter variety. Pkt. 5c, oz. 10c, lb. 75c. ....

**New Zealand.** A spreading vine with numerous branches. One plant will cover an area four feet in diameter. The tender tips may be cut every few days and cooked as spinach; it is just as good. One pkt. is enough for a family garden. Pkt. 5c, oz. 20c.

## SQUASH

### Calabasa

**Culture.** Plant 5 to 7 seeds in each hill. Have the ground well worked and get the seed into the damp soil. Bush varieties have the hills 4 feet apart and running varieties hills 8 feet apart each way. One oz. of seed to 50 hills, 1½ to 2 lbs. to an acre. Plant seed after danger from frost is over.



Hubbard Squash

**Golden Hubbard.** An exceptionally attractive variety of the true Hubbard type. At maturity the color is red and the flesh bright orange. The vine is productive and the fruit is fit for use earlier than the Hubbard. Pkt. 5c, oz. 20c, lb. \$1.75.

**Green Hubbard.** The most popular and widely used of the winter squashes. Fruit is oblong and pointed, heavily warted, dark green in color, with orange-colored flesh. Is remarkable for its keeping qualities. Pkt. 5c, oz. 20c, lb. \$1.75.

**Italian Squash.** Should be used when quite young. When stewed it has a rich, creamy flavor not equaled by any other squash. For the family garden we would recommend its use instead of the small white bush scallop, because of the excellent flavor, and it is much more prolific. Pkt. 5c, oz. 20c, lb. \$1.75.

**Summer Crook Neck.** A very rich, fine flavored summer squash. Very early and productive. Pkt. 5c, oz. 15c, lb. \$1.25.

**Vegetable Marrow.** We feel that this excellent squash should be called to the attention of every one in Southern California. It is early, prolific and delicious, whether stewed or fried like Egg Plant. As it becomes better known it will be seen in every home garden. Pkt. 10c, oz. 15c, lb. \$1.25.

**White Bush Scallop.** A very early variety, with flat, creamy white, scalloped squashes, 4 to 6 inches in diameter. The vine is bush in habit and rather dwarf. This variety is the common "patty pan" squash. Pkt. 5c, oz. 15c, lb. \$1.25.

**Cream.** A good variety for early winter or even summer use. The fruit is oblong, slightly ridged; is creamy yellow outside and the flesh is thick, and when cooked is of most delicious flavor. Is solid and hard and is a splendid keeper. Pkt. 5c, oz. 15c, lb. \$1.50.

### A WORD ABOUT SUMMER SQUASH

In sections where there is little likelihood of late frosts, plant the seed in February, selecting our **Improved White Bush Scallop** and **Italian**. These are the earliest and best varieties, as well as the most prolific.

Plant again in September for late fall crop. From \$400.00 to \$600.00 per acre is realized.

## TOMATOES

### Tomate

**Culture.** Tomatoes do best on light, warm, not over-rich soil, and success depends upon securing a rapid, vigorous and unchecked growth during the early part of the season. Sow in hot-beds from 6 to 8 weeks before they can be set out of doors, which is when danger from frost is past.

Transplant three to six feet apart in rows four to six feet apart, according to the variety,—three feet for those varieties of upright growth, as the Dwarf Champion, and six feet is not too far apart for vining varieties which will soon cover the ground solidly. The soil should be plowed and pulverized to a depth of ten or twelve inches, the deeper the better, in order that the roots may keep in the cool earth, for as soon as the roots are over-heated by the hot, dry soil near the surface, the plant quickly sickens and dies, and the grower can see no cause for it. The roots spread more rapidly and farther than the vines. Therefore give shallow but frequent cultivation.

In the early fall, when the nights have become cool and heavy dews prevail, it would be well to spray with Bordeaux Mixture, to prevent blight. It may be necessary also to spray after each rain throughout the winter.

To prevent root-blight, pour a cupful of Bordeaux around the stem at the surface of the ground.

The time of planting and variety depend upon your local market, soil and climatic conditions, and the purpose for which they are to be grown.

On sandy loam soil, where it is nearly frostless, we recommend planting seed of the First Early and Earliana in hot beds during November, December, and January for winter and early spring tomatoes. Tomatoes that mature the latter part of April are considered early for Southern California.

Plant seed of the Stone variety during April, May, June and July, for the summer and fall crops, for canners and shippers.

For the home garden plant the Stone and the Ponderosa, or Beefsteak.

For Biting Insects Use Arsenate of Lead.



For shipping, only the perfect tomatoes must be selected, and these bring about \$500.00 per carload, and net the grower about \$135.00 per acre. A community growing for car lot shipment should plant not less than one hundred acres, and they should be ready for shipment from September 15th to February 1st, after which time the Southern tomatoes dominate the market. For the cannery, the grower gets fifteen dollars a ton and up, according to the market, and a good crop yields ten to fifteen tons.



New Stone Tomato

**Beefsteak.** One of the largest of all tomatoes, solid, meaty and delicious; a rank grower and very prolific; one of the most popular in the home garden. Pkt. 5c, oz. 55c, lb. \$5.50.

**Chalks Early Jewel.** The fruit is large, smooth, uniform and has all the good points of the tomato family. Pkt. 5c, oz. 45c, lb. \$4.00. . . . .

**Dwarf Champion Tomato.** Vine upright, with dense foliage. Fruit pink, smooth and solid, ripening in mid-summer. Pkt. 5c, oz. 40c, lb. \$4.00.

**Earliana.** The earliest large, smooth red tomato. Used almost exclusively by the market gardeners for the first crop. Plants are very hardy and the fruit will set even during the average cool weather of early spring. The shape is perfect, there being few rough fruits, color, bright red, flesh solid and of excellent flavor. Pkt. 5c, oz. 40c, lb. \$4.00.

**First Early.** Ranks with Earliana for earliness. For size, smoothness, firmness and coloring it cannot be surpassed. Running strong to foliage it affords the fruit more protection than other varieties. Hence it is as hardy a tomato as can be found. Pkt. 5c, oz. 50c, lb. \$5.00.

**New Stone.** This standard main crop variety is easily the most popular Tomato in Southern California. While used largely all the year round it is most generally planted about June 1st, which brings the fruit to full size about September 1st, after which time it will continue to bear until well into the winter; in some cases it will live through the winter and bear the next season. The fruit is large, smooth, bright scarlet in color and has a rich delicious flavor. Pkt. 5c, oz. 40c, lb. \$4.00.

**Ponderosa.** A favorite sort for the home garden; of immense size, sometimes weighing from 2 to 3 pounds each; has very few seeds. Pkt. 5c, oz. 55c, lb. \$5.50.

**Winter Queen.** An early maturing winter variety of compact, bushy habit. Very prolific, of even sized, finely colored fruit and firm flesh. It is a good shipper and very hardy. Pkt. 10c, oz. 50c.

**Frank's Rex Tomato.** Is a cross between the New York Egg Plant and the Beefsteak Tomato, the result being a large round tomato. Has deep red meat, very solid, excellent flavor and very little acid. Is very prolific and a good shipper. Pkt. 15c.

**Note.** For Root or Blight spray early and often with Bordeaux Mixture.

## TURNIPS

### Nabo

While turnips are a favorite fall and winter vegetable, they may be raised in spring and summer also, with proper selections and sowings. They are very easily raised, but to secure the best results need a rich, loamy soil and be well worked to insure a quick growth and the best quality. A succession of crops may be raised from September to June.

**Culture.** Sow in drills 15 inches apart, covering the seed lightly. When the plants are large enough, thin out to 5 or 6 inches apart in the rows. To grow good turnips it requires rich soil and plenty of moisture; this insures a quick, uninterrupted growth, and the turnips will be tender, and not woody as when slowly grown on poor soil. One ounce of seed will sow 100 feet of drill, or 2 pounds to one acre.

**Early Purple Top Strap-Leaf.** A popular variety in this section for either family or market use. Large size, white, purple above ground; flesh, fine grain. Pkt. 5c, oz. 15c, lb. \$1.25.

**Early White Flat Dutch.** An early white flesh, strap-leaved variety for quick growth; mild flavor and excellent quality, with firm, sweet flesh. Pkt. 5c, oz. 15c, lb. \$1.25.

**Golden Ball or Orange Jelly.** Rapid grower, of excellent flavor. Bright yellow color. Plant during cooler months only. Pkt. 5c, oz. 15c.

**Purple Top White Globe.** Very solid and sweet. The best variety for general plantings, having large leaves and is very slow to get pithy. Recommended for planting more than any other variety. Pkt. 5c, oz. 15c, lb. \$1.25.

## SWEDES OR RUTABAGAS

**Yellow Purple Top Swedes.** The well-known and most commonly used variety. Roots, globular; skin, yellow under ground and purple above. Flesh of fine flavor. Valuable for either table use or stock feed. Pkt. 5c, oz. 15c.

## HERBS

We can supply all the common herb seeds at the uniform price of 5c per packet.

## CULINARY ROOTS AND PLANTS

**Palmetto.** Standard among the asparagus shippers of California is the Palmetto. This strain grows to mammoth proportions, and very even in size, which makes it especially popular with shippers. The shoots are a light green, slightly tinted with pink, and are tender to an unusual length. No one will be disappointed with the productiveness and fine edible qualities of the Palmetto Asparagus. One and two year old roots, 35c per doz.

**Cabbage Plants.** Standard varieties. 15c dozen, \$1.00 per 100.

**Cauliflower Plants.** Snowball—the best variety of Cauliflower. 20c dozen, \$1.50 per 100.

**Eggplants.** New York Improved, large round purple, 35c per dozen.

**Horseradish Roots.** Thrive best in low, damp land. Plant in rows 2 feet apart, and in rows 18 inches apart. 25c per doz.

**Pepper Plants.** Chili, Large Bell or Bull Nose, Sweet Mountain, etc., 35c per dozen.

**Rhubarb Roots—Wagner's Giant Winter.** First size, extra large, 15c each, \$1.50 per doz.

**Sweet Potato Plants.** Yellow Nansemond, 50c per 100, \$4.50 per 1000. Ready in March.

**Tomato Plants.** Earliana, New Stone Ponderosa, Beefsteak, 25c per doz.

Write for quantity price of all plants.

Buy "Hall's Garden Helps" for 75c. Best garden book sold.

Don't Hesitate to Consult Us When In Doubt.



# FIELD SEEDS

## SUDAN GRASS

**Culture.** Sudan Grass may be grown either drilled, in cultivated rows, or broadcast. If planted in cultivated rows, the rows should be as close as possible and yet permit of easy cultivation. In 30-inch rows, 3 to 4 pounds of seed per acre is ample, and under conditions of low rainfall this method is recommended. Under irrigation, 18-inch rows are preferable and 4 to 6 pounds of seed per acre is sufficient.

Mr. Young, of Thermal, says: "Hereafter I will sow broadcast for finer hay. My soil is rich, and it grows too rank when drilled in rows."

For broadcasting, 20 pounds of seed per acre should be used. The seed should not be sown until the ground is warm, that is about the time for planting corn. The young plants will withstand slight frosts without injury.

It grows luxuriantly on strong alkali soils. On the ranch of the Montana Land Co., near Alamitos, Sudan Grass planted in mid-summer on alkali land grew luxuriantly together with alkali weed, and where no other weed would grow. It is difficult, however, to get a good start under such conditions, but once started it grows profusely.

In ordering all field seeds add parcel post rates to catalogue prices.

## Sudan Grass For Pasture

"The foregoing points are not all the best features of this new grass. In the months of August and September, when all other grass is dry, then is the time that Sudan shines in all its beauty, and by having it fenced off in small lots, I am confident that it will yield food for five times as much stock as any other forage plant will, without irrigation. For milch cows and hogs, I can't think of a better and more abundant pasture than Sudan. I believe it will solve the hay proposition as nothing else can or will do in this climate."

D. R. Ruble, Salem, Ore.

Another good way to use Sudan Grass, is offered by Mr. Young, who says he sowed Sudan in his worn out alfalfa field and secured most gratifying results in as much as it produced an abundance of hay and pasture during the summer months. The mixture of Sudan and alfalfa was a good milk producing combination. Mr. Young advises its use in run down alfalfa fields instead of barley. Write for price.

**Rhodes Grass** (*Chloris birgata*). For any kind of soil where there is not much alkali, excellent for permanent pasture in meadow or mesa, or cut and dried for hay. Will stand frost down to zero, but for best results must be planted in the warm weather. Is a strong grower and will smother out Bermuda Grass, and cut from 4 to 8 crops a year when well watered. On the other hand will stand a great deal of drought. Particularly valuable in our interior valleys. Sow from 4 to 7 lbs. per acre. Price per lb., post paid, \$1.25.

**Feterita.** Of the many non-saccharine sorghums offered in this book—none have proven more popular from the start than Feterita, on account of its astonishing growth after it becomes well rooted. Every testimonial received expresses astonishment at its rapid growth.

The grain has about the same feeding quality as Egyptian Corn or Milo Maize; yields from two to three tons of grain per acre. It is bothered very little by birds, as they are unable to shell it out and waste it. The seed is more susceptible to cold than other sorghums, therefore should not be planted so early, nor should it be planted in cold soil. Write for prices.

**Egyptian Corn.** Like the preceding fodder crops, it is grown chiefly for the foliage to pasture when young, but yields largely of grain. The chief merit of these fodder crops is in their hardiness to produce fodder and grain with almost no rainfall or irrigation. Sow eight pounds per acre drilled. Write for prices.

**Dwarf Milo Maize.** The King of all Sorghums for Grain. Is much preferred to the tall variety because it stools wonderfully and matures a large head of seed on each stool, producing as much as 3500 pounds of grain per acre, and the stalk being shorter and having more foliage, makes it more desirable for fodder. Dairymen find that the cows will give more and richer milk when fed on it. It is the right crop to plant in young orchards because it will not shade the small trees.

It is highly recommended by the State Department of Agriculture for silage. Write for prices.

## SORGHUM

**Early Amber.** Furnishes a large yield of most nutritive forage, which can be fed either green or cured, and will yield two or three cuttings a year, stooling out thicker each time it is cut. It grows 10 to 12 feet high. Sow broadcast for forage at the rate of 60 lbs. per acre. When sown in drills, sow at the rate of 10 lbs. per acre in drills  $3\frac{1}{2}$  to 4 feet apart. Write for prices.

**Honeydew Sorghum.** Yields very heavily for forage. Contains a higher saccharine content for making syrup than the common varieties and is being planted extensively on this account. Write for prices.

**Poisoning by Sorghum.** Many are reluctant to feed Sorghum for fear of poisoning stock, but we herewith give the facts:

When cut before flowering, it must be allowed to wilt in the sun for several hours before being given to the stock at this stage it contains a proportion of prussic acid and liable to be poisonous. This disappears after the flowering stage is reached. This poisonous quality is more noticeable in the second crop, or, when after a period of drouth or frost when young it has become stunted. In the form of properly prepared silage or dry fodder, Sorghum is never poisonous, but it is dangerous to pasture or to feed green sorghum after it has been frosted or stunted; it should then be cut and dried or ensilaged.

## ALFALFA

**Plant Hairy Peruvian Alfalfa and produce up to 2½ tons more hay to the acre.**

This is the plant that has created a big sensation among alfalfa growers. It produces the greatest alfalfa tonnage known—and does it under all climatic conditions. Hairy Peruvian has been thoroughly tried out and endorsed by the Arizona State Experiment Station, and by growers in both hot and cold countries.

The common varieties of alfalfa are limited in their production compared with the newer varieties which have recently been offered. The Arizona Experiment Station, which is located in the heart of one of the greatest alfalfa producing sections of the United States, has proved that the hairy type of Peruvian alfalfa will produce one and a quarter to one and a half tons more hay per acre per season than the smooth Peruvian. Therefore it is an actual proven fact that **Hairy Peruvian Alfalfa** will yield 2 to 2½ tons more hay per acre per season than the common varieties.

The heavy yield of Hairy Peruvian is due principally to the prolific leaf growth. This plant requires no more water and no more land than ordinary alfalfa. The University of Arizona is rec-

"No Order too Large, None too Small for Us to Fill."



ommending Hairy Peruvian above all other types of alfalfa. In Inyo county where this variety has been thoroughly tried out, its increased production over other types has been so great that it is destined to be widely adopted in that section. The plant appeals to growers in Inyo county because of its great recuperative ability in early spring and its hardy production into the late fall.

You cannot afford to plant any other kind of alfalfa than Hairy Peruvian. It costs only three or four dollars more per acre for seed than the common variety and figuring on only one ton an acre more in yield your profit will be three or four times more than your original investment. Think it over.

Our stock of Hairy Peruvian alfalfa is bought direct from the original introducer and grower and is Government **Tested and Certified** for your protection; true to type, selected, proven. Write for prices.

**Chilian Alfalfa or Common Alfalfa**, the variety usually planted. First-class quality of seed, dodder free. Write for prices.

**Smooth Perubian Alfalfa**. A rapid growing variety which grows well into the cold season. It is said to produce more tonnage per acre than the ordinary sorts. It is especially adapted to the semi-arid sections of California. Our stock of this is exceptionally good, we having been fortunate in securing some extra fancy seed. Price 60c per pound, 10 pounds \$5.00. Write for prices where quantities are wanted.

## HEMP

**Hemp**. Hemp can be grown in Southern California successfully. The seed is used for birds. Its fibre is in big demand. Write for price.

## DWARF ESSEX RAPE

### Pasture for Hogs and Sheep

There is a need and a place for an extra quick growing green forage crop for use any time during fall, winter and spring and our Dwarf Essex Rape fills that need exactly.

Rape can never become a pest as it belongs to the same general family as the turnip and rutabaga and when planted under favorable conditions of soil and season, it makes an immense crop of green forage, juicy and succulent, and often at a time of year when little green feed is available.

If you have hogs or poultry to feed through the winter you can't afford to be without a rape patch. Once you have one, you will never be without one in the future.

We know of no crop plantable at the time of year suitable for rape that will bring you in so great a return for so little expenditure of time and money for seed.

Plant September to January. Drill in rows, 3 feet apart. Lb. 25c.

## SALT BUSH

**Salt Bush**. (Creeping Salt Bush. *Atriplex Semibaccata*). This is a procumbent prostrate many branched, slender, perennial plant, with herbaceous stems, spreading from 3 to 6 or more feet. Under cultivation its growth is simply marvelous. It is a valuable plant for sheep; they eat it with avidity. This variety of the Salt Bush is now grown in great quantities in Southern California, and we are told by several ranchmen that cattle relish it and that it is a fine pasture plant. Grows on dry hill sides and recommended for sowing on ranges for cattle and sheep, about 2 lbs. to the acre. Oz. 10c, lb. \$1.00, postpaid. Special prices on quantities.

**Alfilaria** (*Erodium Cicutarium*). One of the most nutritious of plants. All stock relish it, even prefer it to most any other forage. Like Burr Clover, it is native to Southern California, and would be more prevalent were it not so difficult to gather the seed. It requires five pounds of seed to plant one acre. A few pounds of seed scattered over a range would within two years have the place well covered with alfilaria. Write for price.

## SUNFLOWER

**Mammoth Russian**. Makes heads double the size of the common kind. The yield is enormous from this variety. It has produced as high as 125 bushels to the acre. Per lb. 20c.

**Bermuda Grass**. Excellent for pasture meadows, but a pest on the farm or in the garden. Withstands drought and grows luxuriantly when irrigated. Sow 10 pounds per acre. Will stand more pasturing than any other grass we know of. Write for price.

**Smilo Grass**. The new forage grass. Originated in San Diego County. Planted before a rain on hills and other dry places will spread and yield heavily without irrigation. Greatly relished by all stock. Sow  $\frac{1}{4}$  to  $\frac{1}{2}$  lb. to the acre. Pkt. 50c,  $\frac{1}{4}$  lb. \$1.25, 1 lb. \$3.50.

## COVER CROP SEEDS AND SOIL RENOVATORS

The sowing of nitrogen-gathering plants for green manuring has become popular because of the excellent results attained and because of its cheapness as a fertilizer that its use is almost universal not only for orchards, but for fields, particularly where melons are to be planted.

If your land is sloping, you need a cover crop to prevent eroding during the rainy season.

If your land is lumpy and dry, lacking life, it needs humus and nitrogen.

If your soil is sandy and fails to retain moisture, it lacks humus and nitrogen.

If your soil is of clay and bakes hard and crusts readily, it needs humus and nitrogen.

If you have just taken up a homestead, your soil is new and not in condition for general cropping. Therefore you want to do the best thing you can to put the soil into good chemical and physical condition as quickly as possible. To do so, plow just as soon as you can after the first rain of the season and harrow soon after each rain until ready to plant. During fall or early spring, plant hardy legumes for pasture and green manuring to be plowed under for a summer crop, plant Melilotus, Burr Clover or Vetch. If for a permanent pasture, plant alfalfa. These are all nitrogen-gathering crops and will enrich your soil with nitrogen and humus, but to get the best results inoculate the seed with Nitrogen-Bacteria. If your planting is delayed until spring or summer, plant Cow Peas, Soy Bean, or Broad Windsor.

## Melilotus Alba

### (White Blooming Melilotus) (Bokhara.)

This is a valuable addition to the farm as a forage crop. When quite young, it may be pastured or cut and cured for hay. This should be done just before the bloom appears. It is harder than alfalfa, more drouth-resistant, and better for renovating the soil. It may be cut twice the first season and three or four times the second season, yielding 2500 to 3000 pounds of hay each cutting. It is as easy as alfalfa to eradicate, is biennial. Hence it must be seeded every second year. On account of its hardness to resist extreme cold, heat and drouth it is grown largely in the middle west for pasture. It is highly recommended by the department of agriculture. Write for price, will supply if possible; crop very short this year.

**Burr Clover**. The native Clover, and one of the best nitrogen gathering crops, and very satisfactory for orchards. There is steady demand for Burr Clover, and the seed is very scarce and hard to obtain. It is the very best cover crop for poor or dry land, as it needs but little moisture. price on application, but doubtful if can supply this year.

## BROAD WINDSOR BEANS

Sometimes called Horse Beans, grows upright on a single stem bearing a profusion of large well filled pods. The roots are enormously productive of nitrogen. It will withstand 28° temperature; therefore, may be planted as late as September for best results as a winter cover crop. Per lb. 25c postpaid. Write for quantity price.

Use Mulford Culture and Inoculate Your Alfalfa Seed



# MULFORD'S CULTURES FOR LEGUMES



Without Nitrogen Bacteria      With Nitrogen Bacteria

Inoculate your Alfalfa, Clovers, Peas, Beans, Vetches and all other  
Legume Crops with

## MULFORD CULTURES FOR LEGUMES

Small cost, large returns, easy to use, no labor expense.

Mulford Cultures contain pure, tested strains of active, vigorous nitrogen-fixing bacteria, for inoculating seeds of legumes or soil. Enormous numbers of these very valuable and desirable bacteria are thus available to you in every package of Mulford Culture and may readily be applied to your seed. The sealed bottle insures purity.

### Increase Your Crops Improve Your Soil

Legumes offer the best-known means of maintaining soil fertility and rejuvenating over-cropped and worn-out fields. They add both humus and nitrogen to your soil and thus increase your yield of wheat, cotton, corn and other non-legume crops.

The U. S. Department of Agriculture and many State Agricultural Experiment Stations recommend inoculation of legumes with nitro-fixing bacteria to induce a prompt "catch" and increase your yield.

Mulford Cultures and scientifically prepared and tested by experts, in the biological laboratories of

H. K. Mulford Co., Philadelphia, U. S. A., with the same degree of care as Mulford Antitoxins, Serums, Vaccines, etc., which are standard all over the world.

Always specify on your order what crop you want to inoculate, as there is a different strain of bacteria for each legume.

Alfalfa, Crimson Clover, Sweet Clover, White Clover, Red Clover, Alsike Clover, Burr Clover, Yellow Clover, Cow Peas, Soy Beans, Vetch, Sweet Peas, Garden Peas, Garden Beans.

### PRICES

Mulford Cultures are supplied for the varieties of legumes listed, at the following prices:

5-Acre Size, \$5.00.....	("A Dollar per Acre")
1-Acre Size.....	\$1.50
1-4-Acre Size.....	.50
Small Size (Supplied only in 4 varieties, for Garden Peas, Garden Beans, Lima Beans and Sweet Peas).....	.25

Why buy expensive commercial nitrates when you can grow legume crops and thus increase your yield and at the same time increase the nitrates and enrich and renovate your soil, by Nature's own method?

A full line of all Standard Seeds in Stock—ask for varieties not mentioned.

## Modern Fertilization by Cover Cropping

The use of cover crops as a fertilizer and a means of adding humus to the soil has become established among the most progressive orchardists. The value of legumes in adding available nitrogen to the land is recognized in every line of husbandry, and the fruit grower has found the addition of humus a great saving in irrigation.

Hand in hand with the increasing use of cover crops has come the development of the nitrogen gathering bacteria, which has reached its highest point of commercial success in Mulford Cultures, a high bred culture of bacteria, preserved in containers that keep the bacteria in perfect condition.

This product is most easily applied to the seed before planting, the result being an enormous increase in the foliage and nitrogen nodules of the crop. Many planters report an increase of three hundred per cent. in tonnage, which is all returned to the soil through the decomposition of the plant.

### FOR INSTANCE

An acre of Melilotus clover will give the soil from twenty-five to thirty tons of green manure, equalling in value fifteen to twenty-five tons of stable manure. The cost of the latter compared to the slight expense of an inoculated cover crop of vetch or clover will convince any grower of the economy of green fertilization. It should also be remembered that the nitrogen of stable manure is in the form of ammonia, which leaches out rapidly, while the leguminous plant retains the element until claimed by the roots of the trees.

### MELILOTUS CLOVER

Amongst the deep rooting plants may be mentioned Melilotus indica, a variety that is largely

used in the orange groves, and is highly recommended by the Experiment Stations. It can be sown broadcast at the rate of fifteen pounds per acre in the early part of October, preferably, although sowing may be delayed until November, but will not make as rapid growth as it does when sown earlier. Sown early and kept irrigated it will produce from fifteen to twenty tons of green manure per acre in time for early plowing. It makes a great root system and on this account as well as the large quantity of vegetable matter produced can be used to great advantage in orchards.

The following excerpt from a Bulletin issued by the Arizona Agricultural Experiment Station states, concisely, the best way to sow the seed and the further treatment of the plant:

"The method of seeding found to be the best is to level the ground well, sow broadcast, furrow with a three-shovel furrow, roll and irrigate by running the water in the furrows which should be two or three feet apart. Irrigating it during the winter will not only increase the yield but benefit the orchard. It should be plowed under when about to blossom. At this stage the yield proved to be fifteen to eighteen tons of green matter. If permitted to grow longer it becomes more woody and does not turn under so well or decay as rapidly."

Melilotus clover responds wonderfully to inoculation with Mulford Cultures, at a small increased price per acre.

Our Melilotus seed is Government Tested and Certified, and the Best procurable. Write for prices.

## LAWN GRASS SEED

**Australian Rye Grass.** A fine grass for quick lawn; should be sown very thick and will produce a fine lawn, withstanding drought much better than Kentucky Blue and making sod more quickly, but is a little more coarse in its growth. Lb. 25c. Postage extra.

**White Clover.** The best variety for lawn purposes, making a fine even lawn. There is a great variety of grades of this seed; some adulterations and other impure, which makes a great difference in price. We are procuring at all times the purest that money can buy. Lb. 90c. Ask for special price on quantities. Postage extra.

**Shady Lawn.** A grand grass for sowing under trees, where no other grass will succeed. It makes a beautiful velvety lawn; grows much finer

in leaf than Blue Grass and will stand in quite dense shade. Lb. 60c. Postage extra.

**Blue Grass (Kentucky).** What we have just said concerning clover we repeat in connection with this fine grass. To meet competition many have added mixtures to give weight and reduce its cost, and thus are able to sell cheaper. We challenge anyone to show finer or cleaner stock than ours. Ask for price on large amounts. Lb. 50c. Postage extra.

**North Island Mixture.** Especially suitable for unfavorable locations where other grasses will not thrive, as terraces, embankments, golf courses, etc. Largely used by the Signal Corps School, North Island, San Diego, Cal. Lb. 50c.

## FERTILIZERS

Write for Quantity Prices on All Fertilizers      Prices on Fertilizers are F. O. B. Store

### Nulife Lawn and Garden Fertilizer

The verdict of all who have used the Nulife Lawn and Garden Fertilizer is that it is the most complete and satisfactory Lawn Dressing ever placed on the market. It is manufactured expressly for us and we guarantee that it contains all the elements required and in the proper proportions to produce a luxuriant growth. It is a clean, practically odorless material and can be applied without offending one's sense of smell or sight. Being quick in action the effect can be noticed within a very short time by the rich, green coloring and that velvety appearance, so much sought after. After applying, the sprinkling of the hose brings it down to the roots of the grass, stimulating them to greater activity, and producing a thick sward and a firm growth which remains so throughout the season. Its

superiority over stable manure can scarcely be estimated, as the latter, in addition to disfiguring the lawn by its unsightly appearance, also gives out an unpleasant odor, and always contains weeds and other undesirable seeds. Great care should be taken to distribute the Fertilizer evenly and in no greater quantities than recommended. It can be applied at any time during the year, but never while the grass is wet. This material is equally suitable for flower beds, or the home truck garden.

25 pound sack for 750 square feet.....\$1.25  
50 pound sack for 1500 square feet..... 2.25  
100 pound sack for 3000 square feet..... 4.00

### Write for Nulife Pamphlet

**Nulife Flower and Fern Fertilizer.** A highly concentrated complete fertilizer to be used in small quantities. It gives most satisfactory results. 35c per can.

Successful Gardening Necessitates the Best Seed—Plant "Harriseseeds".



**Bone Meal.** Rich in phosphoric acid and nitrogen. \$4.00 per 100 lb. sack.

**Agricultural Hydrated Lime.** It supplies the element calcium to plants, it makes "sour soil sweet," changes an acid condition to a slightly alkaline one, it has the power to shrink clay and adobe soils making a larger number of crumbs from a sticky mass, it prevents packing, baking and cracking; makes cultivating easier, it promotes the normal decay of organic matter in the soil preventing the accumulation of poisonous matter, it promotes the change of nitrogen in organic matter into available nitrates, liberates and places at the disposal of plants potash and phosphoric acid already in the soil. It de-

stroys fungus and the germs of insect life that infest the soil. Hydrated lime because of its fineness, high calcium content and concentrated condition is the ideal agricultural lime and the most economical on the market. Use one half less than other forms of lime. In cloth sacks weighing one hundred pounds. Per sack, \$2.00, 4 lb. pkgs. 20c.

**Nitrate of Soda.** A fertilizer very quick in action and used for the nitrogen it contains. It creates rapid growth, is odorless, very quickly and entirely soluble. It should be applied only when the plants are above ground, usually in combination with other chemical fertilizers. Write for prices.

## How to Plant an Attractive Lawn

We all know what a pleasing sight it is to see a dark green, velvety lawn, and we all agree that the lawn is the prettiest feature about the front garden. Yet we see so many neglected front lawns here, and a good many front gardens, where the people never made an attempt to grow a lawn at all, perhaps on account of the neighbors "bad luck". We may admit that it takes a little more work and expense to grow a lawn here than it does in the east, but at the same time, let us remember that when we have a good lawn here once, it is a continual pleasure the year around and year after year, while in most of the eastern states the lawn only lasts during a few summer months. Therefore we can well afford a little extra work and a few more dollars in acquiring a perfect lawn if we make the attempt at all.

In starting the work of planting the lawn, first see that you have the correct grade. Avoid, if possible, a flat, impressionless grade. A lawn with a gentle slope if ever so small, towards the walks, always looks better. Almost any kind of soil can be "doctored", so it will grow grass to perfection, as long as it is not hardpan. Where this is the case of course soil must be filled in. Forget about the old time necessity of loading up the lawn spaces with stable manure.

Where the soil is very heavy or adobe pick up the ground and apply a coat of hydrated lime, 100 lbs. to 1200 square feet. Wet down and let it lay a few weeks, watering it once a day. The lime will cut through the soil and make it easy to work. A load of sand will also work wonders on soil of this kind. When through grading, see that the proposed lawnspace are loosened up thoroughly to a depth of 6 or 8 inches. Then rake over to a smooth finish and apply Nulife fertilizer at the rate of 100 lbs. to 2,500 square feet. If the soil is very light, use half and half of bonemeal and fertilizer. In heavier soil use fertilizer alone. Rake in your fertilizer and be sure it is thoroughly mixed with the soil. Now sow your seed carefully and evenly at the rate of 1 lb. to 150 square feet. Kentucky blue grass seed will grow the best looking lawn here. A mixture of clover and blue grass makes a hardier lawn; use 1 lb. clover to 4 lbs. grass seed. When through sowing rake in seed, taking care not to displace it. Never attempt to sow on a windy day. After seed is raked in, cover with sawdust, 1 sack to 175 square feet. The sawdust protects the seed germs from the sun and keeps the surface from crusting after watering. Roll the lawn until it is firm and then water thoroughly with a gentle spray, taking care not to wash out the seed or displace the covering. From now on, keep the lawn wet all the time, watering as often as 4 or 5 times a day, until grass is up, which will take from 9 to 11 days. Then diminish watering to once or twice a day. Start in cutting the grass as soon as high enough for the lawn mower to nip the tender tops. It requires a sharp lawn mower to cut a new lawn. After lawn is cut once, a thorough watering three times a week is sufficient to produce a perfect looking lawn.

A lawn planted after these directions should be ready to cut in five weeks and will stay a perfect lawn for from ten to twenty years, if kept free from weeds and given commercial fertilizer



twice a year, in the spring and the fall, at the rate of 100 lbs. to 2500 square feet.

It is needless to add that a coat of commercial fertilizer will also work wonders on an old and yellow lawn, if the proper amount of water is applied afterwards.

Write or ask for price on Kentucky Blue Grass and White Clover.

We carry nothing but fancy grades of lawn grass. Our Kentucky Blue Grass and White Clover seed are as good as can be bought anywhere. Prices on application.

## HINTS AND SUGGESTIONS

During the years just past, more than one thousand inquiries have come to us. No two required precisely the same answer, because no two inquiries expressed the same conditions.

We have endeavored in this catalogue to give information that would apply to almost every condition presented to us during the year, but when you cannot find the answer to your particular case, write us about it.

**We want you to excel in your line.** You can excel if you use HARRISEEDS and follow instructions given in this book.

**If you have but a city lot with a cottage upon it,** you can within six months make the place a cozy home with flowers for beauty, and vegetables and berries sufficient to supply the table for the average family.

**If you have one acre of ground,** you can supply the table and sell enough to pay the grocery bill each month. One man with a little aid from his family can farm as much as one acre along with his daily work, and enjoy the healthful recreation.

## REMEMBER

That in a catalogue this size it is impossible to list everything we carry in stock, but we aim to have everything that is ordinarily carried by a first-class, up-to-date Seed store. So write or ask for anything you don't see listed.

We carry a large and varied stock of colored Raffia for basket work, etc., also different sizes of cane and needles. Write or ask for prices.

Buy "Hall's Garden Helps" for 75c, the best garden book for San Diego County conditions on the market.

**We Can Help You Plan Your Lawns and Gardens.**

# Flower Garden Planting Calendar

## JANUARY

If possible before spading have a good thick dressing of stable manure applied and spaded under. See to the Sweet Peas that were planted in September and October. Carefully hoe them and hill up a little. Prepare hotbed for planting half-hardy plant seed, plants and cuttings. Make another planting of Sweet Peas and all hardy annuals.

## FEBRUARY

This is really our spring month. Plant nearly everything in hardy annuals and perennials. Thoroughly work up the surface of soil after each rain and keep it mellow, which will hasten the growth. Plant out Gladiolus and Tuberose, Callas, Anemones, Ranunculus and Japanese Lilies, Iris, etc. Plant Sweet Peas for late flowering, all the varieties of annual and perennial Poppies. Look after all Carnations and if over two years they should be replaced with young plants. Carnations may be planted at any time of the year, but this is a good time to plant them to get strong plants for fall and winter blooming.

## MARCH

Plant Gladiolus and Tuberose, Begonias (Tuberous rooted) for succession. This is the best garden month of the year for California, and all kinds of work is in order. Weeds also make a big growth this month, keep them well out of the garden. Plant Antirrhinum, Intermediate Stocks; these Stocks if planted now will flower in August and September when flowers are scarce. You can successfully plant nearly everything in the flower, shrub and tree seed line; nearly all danger of frost is past by the 15th and all work should be carefully pursued as a little neglect now may mean a considerable loss later on. Plant Roses and all hardy bush stuff. Be sure and try out Giant Comet Aster.

## APRIL

Renew your hanging baskets that have not stood the winter well by getting new plants for them; those injured by the cold should be discarded. You can now plant Dahlias and Gladiolus, in fact the Gladiolus may be planted at any time in and around San Diego. If your supply of Aster plants is short there is still plenty of time for them to flower. Use Branching for late, Comet for medium and Dwarf for early flowering. Our strain of Aster is a special importation and is the best that money can buy.

## MAY

If you have been following our advice you now have great quantities of flowers, but for fall flowering sow Nasturtiums, Phlox, Saipiglossis, Centaurea, Dianthus

and Mignonette now. Also Scabiosa, Digitalis, Campanulas and Delphinium.

## JUNE

Trim edgings of border and hedges and carefully attend to watering. Dahlias may still be planted. Sow Eucalyptus seeds for winter planting.

## JULY

Continue to dig and store bulbs as they ripen. Trim edgings and hedge rows and sow perennial flower seeds in shady situations. Sow Pansies for early fall flowering.

## AUGUST

This is the best month in the year in which to sow hardy perennials. Most varieties if sown this month will flower next year. Also sow Calceolaria, Cineraria, Pansy and Primula seeds. Do not water Roses this month or next month at all. Let them dry down and rest. Sow Stock, Centaurea and Winter Blooming Sweet Peas for flowers during the holidays.

## SEPTEMBER

Commence planting Hyacinths, Tulips, Anemones and other Dutch bulbs toward the end of the month. Prick off Calceolarias, Cinerarias, and Primulas sown last month into small pots and continue to plant same for succession. Plant all the hardy annuals and perennials also more Winter Blooming Sweet Peas.

## OCTOBER

Commence planting Hyacinths, Narcissus, Tulips and all other Dutch bulbs as soon as they arrive. Sow Pansies again this month, also Stocks, Scabiosa, Winter Sweet Peas, Phlox, Dianthus, etc., for winter flowering. Mulch and manure Roses and thoroughly water them, give lots of manure and you will have lots of flowers if you did not let them grow during the last two months.

## NOVEMBER

Continue planting all Dutch bulbs. Sow Pansy, Stocks, Phlox, Centaureas, Dianthus, etc. Place your orders for early supply of Roses, Carnations, etc. Thoroughly mulch the garden with stable manure or Pulverized Sheep Manure.

## DECEMBER

Finish planting Dutch Bulbs this month. Look about for your supply of hardy bedding plants—Roses, Salvias, Carnations, etc. Also plant Japanese Lilies, Pansies, Stocks, Sweet Peas, Phlox, Mignonette, Candytuft, Alyssum, Cosmos, etc. Thoroughly protect tender stuff from the cold nights, and let this be among your New Year's resolutions: "I will use more fertilizer next year."

Our Flower Seed Packets Are Put Up From Bulk Seeds.



# Success with Flower Seeds

## A Few Cultural Suggestions (Planting Calendar)

The use and growth of flowers, especially, marks the progress of individuals and nations, the greatest nations of the earth being those with whom the love of floriculture most prevails. To the lover of flowers what can be more interesting than to sow the seed, water and otherwise care for the growth and development of the plant, and at last enjoy the expansion of the flowers? What does the sense of proprietorship of the purchaser of flowers compare to that of the grower of them? The latter feels that they are verily his own, the results of his fostering care. Among the flowers which may be grown with a minimum amount of care and expense are those varieties which reproduce themselves from seeds. They are classed as Annuals, Biennials and Perennials, and these are subdivided into Hardy, Half-hardy and Tender varieties of each class.

**Hardy Annuals** are those plants which may be sown in the open air. They grow, flower, produce seed and then die.

**Half-hardy Annuals** are those varieties which require an even temperature of at least 60 degrees to germinate the seed, and will not stand frost; consequently they must not be sown in the open ground during the fall or winter months, and not in the spring till April. A good rule for those to follow who wish to sow this class is to wait for the proper weather and season in which to sow corn, melon or pumpkin seeds.

**Tender Annuals** are those that require greenhouse protection, as *Calceolaria*, etc.; the seeds are usually very fine, and it requires skill and care to raise them.

**Hardy Biennials** are those that flower in the second year from sowing the seed and then die.

**Hardy Perennials** are among the finest of our border plants. They do not usually flower till the second year after sowing, but may be relied upon to produce larger clumps of flowers year by year for many years.

**Half-hardy Perennials** are those which require some protection during the cold weather, as they will not stand frost.

**Tender Perennials** are those species that require greenhouse or other protection during the greater part of the year, as they are, generally speaking, natives of tropical countries.

The best time to sow Hardy Annuals is in

the fall months, as they will make much stronger plants and flower much more abundantly when wintered over. They may be sown in any finely-prepared shady border, and transplanted when large enough, to where they are to flower. Do not cover the seeds too deep. A good rule is to cover each seed its own depth with soil, at the same time taking care to water carefully. Never water so much that the soil gets "soggy," i. e., saturated; nor ever let the top get dry. Most varieties will germinate within ten days.

They may also be sown at any time during the spring months for summer blooming, care being taken to shade the young plants after transplanting, in hot weather.

**Half-hardy Annuals** may be sown in April out-of-doors, or in boxes, in March or earlier. If in boxes they should be covered or removed under cover during the night time and during heavy rains. Those who have hotbeds may sow the seed in February and grow the plants in 3-inch pots for planting outdoors in April, thus gaining two months on those who have not this advantage. If sown in boxes, the boxes should have an inch of rough soil or gravel at the bottom for drainage; the remainder of the box should be filled within an inch of the top with sifted, light, rich soil, firmly pressed, and the seed should be sown, covered its own depth with soil again pressed and watered. When the young plants are large enough to be handled, prick out into other boxes, planting them about 1 inch apart, and, when weather permits, they should afterwards be planted in the open ground in the place where they are to flower.

**Tender Annuals** should be sown in pots as follows: Take a 5 or 6-inch flower pot, put an inch of drainage in the bottom, then 2 inches of finely-sifted soil, firmly pressed, with a sprinkling of sand on top. Then sow the seed, and do not cover, but press into the soil. Water with a very fine sprinkler, and cover the top of the pot with a sheet of glass. Remove the glass for an hour daily to dry up the damp. When seedlings appear gradually harden them off to the air. As soon as they can be handled, prick out into 2-inch pots, and shift again when necessary.

**Hardy Biennials and Perennials** should be sown in boxes, and treated as recommended for Half-hardy Annuals till plants appear, when they should be pricked into 2-inch pots, and shifted afterwards when necessary.

## Choice, Selected Flower Seeds

The ordinary commercial grades of flower seeds, such as are usually sold, can be and are sold at a very low price. They are grown and harvested in large crops, much like grain. They are produced cheaply, sold cheaply, and are, in fact, cheap in every sense of the word; and he who sows them has no right to complain at their poor quality. They cannot possibly be anything but poor. Seed

of high quality can be produced only by thorough, careful, painstaking and expensive methods. Our stocks are special strains of special varieties bred up to the highest mark of perfection and selected with great care, and for this reason we offer but a limited number of varieties—only those which are of the greatest merit, and sure to give satisfaction everywhere.

Our Flower Seeds Are Fresh, Tested, and From the Best Growers.

## Suggestions---To Assist in Selecting Varieties for Special Purposes

### Flowering Garden Annuals

And Other Plants That Attain Perfection and  
Flower the First Season From Seed

Sorts marked \* are best for beds and massing.

African Daisy*	Linum
Ageratum*	Lobelia*
Alyssum, Sweet*	Marigold*
Antirrhinum*	Marvel of Peru
Arctotis	Mignonette
Asters*	Myosotis*
Balsam	Nasturtium*
Brachycome	Nicotiana*
Calendula*	Nigella
Calliopsis*	Pansies*
Canna	Pentstemon
Candytuft*	Petunia*
Carnation, Marguerite	Phlox D.*
Celosia*	Poppy*
Centaurea (An'l)	Portulaca*
Chrysanthemums*	Rhodanthe
(Annual Var.)	Ricinus
Clarkia	Rudbeckia
Convolvulus Minor	Salpiglossis
Cosmos	Salvia*
Dahlia	Scabiosa
Dianthus*	Schizanthus
Eschscholtzia*	Stocks*
Gaillardia	Sweet Peas
Godetia	Sweet Sultan
Gypsophila	Verbena*
Hollyhock* (Annual)	Wallflower (Annual)
Kochia	Zinnia*
Larkspur	

### Ornamental Foliage Plants

Grown From Seed

A., Annuals; P. Hardy Perennial.

Amaranthus, A.	Kochia, A.
Canna, H. P.	Marvel of Peru, P.
Centaurea candida P.	Pyrethrum Aure, P.
Cineraria Marit, P.	Ricinus, P.

### Everlastings

For Winter Bouquets

Acroclinium	Helichrysum
Gomphrena	Rhodanthe
Gypsophila Paniculata	

### Edgings Plants, From Seed

For Bordering Walks and Beds

All are Annual excepting H. P. are Hardy Perennial.

Ageratum	Myosotis, H. P.
Alyssum, Sweet	Nasturtium, Liliput
" H. Sorts, H. P.	Nigella, Tom Thumb
Asters, Miniature	Petunia Comp.
Bellis, H. P.	Phlox Nana Comp.
Candytuft, Dwarfs	Sw. William, H. P.
Cosmos, Dwarf Yl.	Sweet Pea, Cupids
Lobelia Comp. Vars.	Zinnia, Liliput
Marigold	

### Plants From Seed

Succeeding in Partial Shade

Anemones	Linum
Antirrhinum	Myosotis
Aquilegia	Pansy
Bellis	Primules
Canterbury Bells	Poppies (Hardy)
Coreopsis (Hardy)	Schizanthus
Delphinium	Torenia
Digitalis	Violet
Ferns	Viola
Hardy Primrose	

### Climbing Vines, from Seed

#### Plants Suitable for Pots or Window Boxes

That May Be Grown From Seeds

Ageratum	Impatiens
Asters, Dwarf Sorts	Mignonette
Calceolaria	Myosotis
Carnation	Nasturtium Liliput

Chrysanthemums  
" Paris Daisies  
Cineraria  
Cyclamen  
Ferns  
Gerbera  
Heliotrope

Petunia  
Primroses  
Rhodanthe  
Schizanthus  
Stocks  
Torenia

### Fragrant Flowers From Seed

Those marked H. P. are Hardy Perennials.

Alyssum	Nicotiana Affinis
Carnations	Pinks, H. P.
Cleome	Scabiosa
Cyclamen	Stock
Dianthus (Hardy)	Sweet Pea
Heliotrope	Sweet Sultan
Lavender, H. P.	Sw. William, H. P.
Mignonette	Wallflower, H. P.

### Plants for Vases

Hanging Baskets, Veranda Boxes, Etc.

DROOPING	Torenia
Alyssum	UPRIGHT
Asparagus Sprengeri	Centaurea (White- (leaved)
Calendula	Fern
Convolvulus	Fuchsia
Candytuft	Heliotrope
Lobelia Gracilis	Impatiens
Nasturtium (Trailing)	Pansy
Petunia	

### Long-Stemmed Flowers

Notably Suitable for Cutting

Aquilegia	(Hardy sorts)
Asters	Gaillardias
Calliopsis	Gerbera
Carnations	Gladiolus
Centaurea Cyanus	Gypsophila
Chrysanthemums, Maximum, Japanese and French	Larkspur (Branching)
Coreopsis	Marigolds
Cosmos	Pentstemon
Dahlias	Salpiglossis
Delphinium (Hardy)	Scabiosa
Dianthus	Stocks
	Sweet Peas
	Zinnias

### Hardy Perennials

For Permanent Beds, Borders or Masses—Many  
Flowering the First Season

Alyssum	Hollyhocks
Anemone	Hunnemannia
Antirrhinum	Impatiens
Aquilegia	Linum Flax
Ageratum	Lobelia
Bellis (Daisy)	Myosotis
Campanula	Pansy
Canna	Poppy
Cassia	Pentstemon
Centaurea Candi- dissima	Papaver, Oriental
Chrysanthemum	Petunia
Coreopsis	Phlox
Cyclamen	Primula
Dahlia	Ricinus
Delphinium	Romneya
Dianthus (Pinks)	Rudbeckia
Digitalis (Foxglove)	Salvia-splendens
Forget-me-not	Scabiosa
Foxglove	Snaptadragon
Freesia	Statice
Gaillardias	Stocks
Gerbera	Sweet Alyssum
Gladiolus	Torenia
Gypsophila Pan	Verbena
Heliotrope	Viola
	Wallflower

### Hedge Plants

Easily Grown From Seed

Acacia (Cuerne de Vaca)	Eugenia-Aust
Atriplex	Laurus Tinus
Rox Wood	Ligustrum (Privet)
Cassia Artemesioides	Genista
	Pittosporum



# FLOWER SEEDS

## Annual and Perennial

ABBREVIATIONS An.—Annual; Per.—Perennial

### ACROCLINUM

Very pretty annual, producing white and rose-colored daisy-like flowers in August and September. These are the "Immortelles," so desirable for wreaths and winter bouquets. One foot. Double mixed. Pkt. 5c.

### AGERATUM (An.)

**Little Dorit (Azure Blue).** One of the very best bedding plants, being literally covered with feathery blue flowers nearly all the year. Also valuable for pot and window box culture. Height 8 inches. Pkt. 10c.

### ALYSSUM (An.)

Pretty little plants for beds, vases, baskets, edgings or rock-work, blooming profusely all summer; useful also for winter flowering; sweetly scented. Height, 8 inches.

**Little Gem, or Carpet of Snow.** Of dwarf, compact habit, four to six inches in height, each plant covering a circle 15 to 30 inches in diameter. Pkt. 5c.

### AMARANTHUS (An.)

Ornamental foliage plant. They are most brilliant on poor soil.

**Tricolor (Joseph's Coat).** Plant three feet high, with brilliant leaves in variegated, red, yellow, green. Fine for borders. Plant in sunny place. Pkt. 10c.

### ANTIRRHINUM

(Snapdragon)

One of our finest perennials, flowering the first year. Its bright colored, curiously formed flowers always excite interest, and among the newer sorts are flowers of a great variety of colors and markings; some of wonderful brilliancy, others soft and pleasingly shaded, with a velvety appearance. Average height 1½ feet.

**Giant Mixed.** See colors. Pkt. 10c.

### ASTERS (An.)

It is unnecessary to dwell upon the great beauty of these popular favorites, as they are appreciated by all. Plants from seed sown in the open ground in April or May bloom in August, when they are at their best. Height, 1½ feet.

**Giant Comet, Mixed.** Colors, deep blue lavender, lilac, yellow and salmon rose. Pkt. 10c.

**Sample's Branching.** A large, late flowering variety in great demand for cutting. The plants form strong branching bushes 2 to 2½ feet high, producing large Chrysanthemum-like flowers on long, stout stems. Per pkt. 10c.

**Crigo**—We might term this class as the Japanese Chrysanthemum Aster, from its appearance. The flowers are very large recurved, curled and twisted, making it an especial artistic variety. Pkt. 10c.

### ARCTOTIS GRANDIS (An.)

(African Daisy)

Pearly white daisy-like flowers shaded with delicate mauve at the tips of the petals. There

are few flowers grown more valuable for cutting purposes. The flowers last a week or ten days after being cut. Height 30 inches. Per pkt. 10c.

**Asperula Odorata (Sweet Woodruff).** An old-fashioned favorite, grown for its fragrant leaves and stems, which, when dried, have an odor not unlike new-mown hay, and are used for putting among clothes, etc. Best grown in semi-shaded positions. Flowers white; perennial. Pkt. 5c, ¼ oz. 25c.

**Australian Pea Vine, (Per).** (*Dolichos lignosus*). A very rapid growing vine, with pretty foliage and rose and purple pea-shaped flowers. Valuable for covering up fences quickly; stands the heat well. The seed should be soaked in hot water about 12 hours before sowing. Pkt. 10c.

**Balsam.** "Touch-me-not." Annual 1 to 1½ feet high. Valuable for summer flowering. Sow the seed in boxes in early spring and afterwards transplant to beds of rich, well prepared soil. Per pkt. 10c.

**Bartonia Aurea (Golden Bartonia).** A hardy annual, growing about two feet high and bearing golden-yellow flowers, which have a metallic luster when the sun shines on them. Is a native of California. Sow the seed where the plants are to remain, since it does not transplant easily. Pkt. 5c.

**Bellis Perennis. (An.)** "Double Daisy." Perennial, but flowering the first season from seed. Favorite plants for edgings, low beds, etc. Height 6 inches. Pkt. 10c.

**Brachycome Iberidifolia.** "Swan River Daisy." Annual 1 to 1½ feet, forming a close, compact plant, with immense numbers of large single blue or white flowers, in bloom nearly all the year. Pkt. 5c.

**Browallia.** A half hardy annual, making a fine bedding plant. Blooms profusely. The flowers are bright, ultramarine blue, and also sky blue with white center. Mixed, pkt. 10c.

### CALENDULA

(Pot Marigold) (An.)

Free flowering hardy annuals, growing in any good soil, producing a fine effect in beds or borders, and continuing in bloom until fall. Height, 1½ feet.

**Orange King.** Very large double flowers of a dark orange red. Pkt. 5c.

**Lemon King.** A grand variety, with double extra large flowers of a pure golden yellow. Pkt. 5c.

**Mixed Colors.. Choice.** Pkt. 5c.

**Calliopsis Bicolor. (An.)** Improved new giant flowered variety, with red, brown center and light yellow at outer edge of petals. A very striking flower blooming about 3 months from seed. Pkt. 10c.

### CANTERBURY BELLS

Very ornamental, growing about 2 feet high, producing beautiful, large bell-shaped flowers, which make a glorious display when planted in large beds.

**Calyceanthema.** (Cup and Saucer Canterbury Bells). This is unquestionably the finest type of this old-fashioned and much-prized garden plant. Pkt. 10c.

If Its Anything for the Garden We Have It.

## CANDYTUFT (An.)

Widely grown and considered indispensable for cutting. All the varieties look best in beds or masses. Seed sown in autumn produces flowers early in spring. Hardy and easy to cultivate. Pkt. 5c.

**Canterbury Bells.** Single, blue and white mixed. Pkt. 5c.

## CARNATIONS

A splendid collection of the "Marguerite" and other annual sorts. Pkt. 10c.

## COCKSCOMB

**Celosia Cristata** (Cockscomb). Free blooming annuals growing best in rather light soil, not too rich; make grand border plants. Pkt. 10.

**Celosia Plumosa** (Feathered Cockscomb). Make fine plants for large beds or groups. Pkt. 10c.

**Celosia Childsi**—"Woolflower.". The new dwarf cockscomb from China. Introduced some 2 years ago; has proven a great acquisition to this class of plants; should be bedded out and transplanted as soon as frost is past. Pkt. 10c.

## CENTAUREA (An.)

**Bachelor's Button** or **Centaurea Cyanus**. A showy, hardy annual, succeeding well in any soil, and bearing a profusion of flowers in shades of pink, blue and purple. The well known color flowers. Height, 2 feet. Pkt. 5c.

**C. Imperialis**. "Royal Sweet Sultan." Annual, 2 to 3 feet. A great improvement on the old strain of "Sweet Sultan"; flowers resemble the "Cornflower" in shape, but are of immense size. Valuable for florists' use, lasting a long time when cut. Pkt. 10c.

**C. Candidissima**. "Dusty Miller." Perennial, 1 to 1½ feet. A beautiful plant with white silvery leaves and used for beds and edgings. The seeds should be sown in seed boxes and afterwards transplanted. Pkt. 10c.

## Annual Chrysanthemums

These are becoming more popular every year and are not only grown for summer but are quite as satisfactory for winter flowers, being hardy in Southern California. Can plant at intervals and have them in bloom the year through of compact, thrifty growth, about 2 feet high. Large plantings are made in August, September and October for winter blooms.

**Chrysanthemum, Single Mixed.** These are sometimes called Painted Daisies because of their bright colored flowers, which appear about 3 months from planting, coming in all shades and colors of flowers from yellow buff, red and maroon blotched and rayed, making excellent flowers for cutting. Pkt. 10c, ¼ oz. 15c.

**Double Mixed.** Pkt. 10c.

## CINERARIAS

The finest mixture of these shade-loving perennials. Pkt. 25c. Height 1 foot.

## COBAEA SCANDENS (An.)

A half hardy, climbing annual, with large leaves and large trumpet-shaped flowers. Blossom is green until nearly grown, when it turns bright purplish blue. Grows about 30 feet long, and is very desirable for covering a large lattice. A native of Mexico. Pkt. 10c.

**Coleus.** Fine quality. Mixed. Splendid for bedding. Pkt. 10c.

**Coleus.** Exhibition of finest colors and fine foliage. Pkt. 25c.

## COREOPSIS GRANDIFLORA

(Perennial)

**Lanceolata.** One of the finest hardy garden plants grown, forming large clumps 2 to 3 feet high and increasing in beauty, luxuriance and

floriferousness each year, though it flowers at the first season from seed sown early. Immense rich, yellow flowers, shaded with orange, flowering in profusion for a long period during the summer, unequaled for cutting; grows anywhere. Pkt. 10c

## COSMOS (An.)

A strong, tall-growing annual, its bold flowers have yet an exquisite daintiness and airiness heightened in effect by their foliage-setting of feathery green. It is most effective when planted in broad masses, or long background borders against evergreens or fences at some little distance from the house and the garden walks.

**Klondyke.** A late blooming variety, with bright yellow blossoms. Pkt. 10c; oz. \$1.00.

**Early Flowering Mixed.** The usual Cosmos colors in mixtures. Pkt. 5c.

**Giants of California.** Pink, pkt. 10c; White, pkt. 10c; Crimson, pkt. 10c; Mixed, pkt. 5c.

**Cyclamen Gigantea.** Large flowered variety. Fine strain. Mixed. Pkt. 25c.

**Cypress Vine.** A popular annual climbing vine with delicate fernlike foliage and masses of small star-shaped flowers. Sow early in spring; soak the seed in warm water a few hours before sowing. Pkt. 5c.

## DAHLIA

Perennial, 4 to 6 feet, flowering the first season from seed. Well known plants with large, showy flowers, useful for beds and masses. Sow the seed early in spring in seed boxes and afterwards transplant to the open ground. Dahlias like a rich soil with plenty of well rotted manure and should be watered freely. In raising Dahlias from seed many of them will come semi-double, although the seed is saved from the very best double varieties. The best varieties should be marked when in flower and at the end of the season the poor ones discarded and the better ones can be taken up and divided and again replanted.

**Cactus.** Double, with long pointed petals; seeds saved from one of the finest collections. Mixed colors. Pkt. 10c.

## DELPHINIUM (Per.)

(Or Larkspur)

**Delphinium Formosum.** Dark blue, fine perennial, and especially hardy and attractive. Pkt. 10c.

**Delphinium, Bella Donna.** Everblooming hardy Larkspur. Light blue with giant flower spikes often making stems 7 to 8 feet high and flower spikes 2 feet. Most gorgeous sight when planted in clumps. This is, we believe, one of the grandest of the entire list. Pkt. 10c.

plants. Useful for beds and also for cutting. Pkt. 5c.

## DIANTHUS CHINENSIS

(Or Pinks)

Biennial, but generally treated as an annual; 1 foot high. Charming free-flowering plants with flowers of the most brilliant colors. Very effective for planting thickly in beds. Mixed colors. Pkt. 10c.

## DIGITALIS OR FOXGLOVE

(Perennial)

A hardy perennial, blooming the second year from seed. Grows usually about 3½ feet, although in very rich soil sometimes 6 feet. The bell-shaped flowers are borne on long spikes, and come in shades of purple, lavender, rose and white, all spotted lightly inside the blossom. Thrives best in cool, shady locations. Fine mixed, pkt. 10c.

Use Tisit Spray for Red Spider and Scale.



## Dimorphotheca Aurantiaca

Orange African Daisy

Rare and extremely showy annual from Namaqualand, South Africa, which will soon become a great favorite in easy culture and its beautifully colored flowers. The plants, of very neat branchy habit, grow about 12 to 15 inches high and are exceedingly profuse in flowering. Well adapted for groups or borders, it produces its pretty flowers very early after being planted out in the open ground in sunny situations and will continue to flower during the entire year. Pkt. 10c.

**Dolichos** (Hyacinth Bean). A rapid growing and free flowering annual climber. The seed pods which follow the flower are very ornamental. Purple and white colors mixed.

**Eschscholtzia**. California Poppy. Too well known to describe. This plant can be kept blooming from year to year if kept watered. Pkt. 5c.

**Euphorbia Heterophylla** (Annual Poinsettia Mexican Fire Plant, Painted Leaf). An annual resembling in habit and color the beautiful hot-house Poinsettia. Pkt. 10c.

## FORGET-ME-NOT

(Myosotis) (Per.)

A hardy perennial, growing 6 to 12 inches high. Small, star-like flowers are borne in clusters on long stems. The plant is of easy culture and blooms the first year if seed is sown early. Thrives best in a cool, moist location.

**Alpestris**. Blue. Pkt. 10c, oz. 75c. Height, 6 inches.

**Four-O'Clock** (Mirabilis). An old garden favorite. In California it is a perennial and a very attractive plant as it is always in flower. Pkt. 5c.

## GAILLARDIA (Per.)

One of the most showy and brilliant of garden flowers, fine for bedding and cutting, producing large flowers or rich shades.

**SINGLE GRANDIFLORA**

**Globe Amaranth** (Gomphrena). Mixed colors, a desirable everlasting, valued for its handsome, globular heads of flowers which can be dried and used in winter bouquets. Pkg. 5c, ¼ oz. 50c, post-paid.

**GODECIA**

A hardy annual, growing from six inches to ten inches high. Of compact growth, with a profusion of satiny cup-shaped flowers in deep red, pink and white, shaded and blended. Valuable for bedding or massing. Sow seed early in the year. Small-flowered, deep-red variety; grows wild in California.

**Tall Sorts**. Fine mixed, pkt. 5c.

## GOURDS (An.)

Ornamental climbing or trailing plants of great diversity of shapes and colored fruits. They should be planted in early spring. Each 5c per pkt.

## GYPSOPHILA ELEGANS alba

GRANDIFLORA (An.)

(Baby's Breath)

This is an improved large-flowering, pure white form of the annual Baby's Breath, of free, easy growth, and grown by the acre in the suburbs of Paris and London for use with other cut flowers. Several sowings should be made during the season to keep up a supply. Pkt. 5c.

**Helichrysum**. Everlasting flower. Pkt. 5c.

## HOLLYHOCK (Per.)

Favorite hardy perennials. Will flower the first season if sown early.

**Allegheny**. Semi-double, fringed, mixed. Height 5 feet. Pkt. 10c.

## HUNNEMANIA FUMARIAE-FOLIA (An.)

Giant Yellow Tulip Poppy

This is by far the best of the poppy family for cutting, remaining in good condition for several days. Seed sown early in May will, by the middle of July, produce plants covered with their large buttercup yellow, poppy-like blossoms, and never out of flower until hard frost. 10c per pkt.

## HUMULUS JAPONICUS VARI-EGATUS (An.)

"Japanese Hop." A beautiful annual climbing plant. Leaves marbled and splashed with white on light and dark green ground. Very effective for screens, arbors, etc. Sow the seed in spring when the weather is warm and settled. Pkt. 10c.

## IPOMOEA

**Ipomoea Leari**. "Blue Dawnflower." Perennial climbing vine, 30 to 40 feet. Likes a warm, sunny situation. Soak the seed in hot water a few hours before planting and sow in spring when the weather is warm and settled. Pkt. 10c.

**Grandiflora alba**. "White Moonflower." Perennial climbing vine, 15 to 20 feet. Large white, fragrant flowers 5 inches in diameter. Treat the seed the same as the above variety. Pkt. 15c.

**Heavenly Blue**. Annual, 15 feet. Flowers, large sky-blue, flowering in the fall. The most beautiful of all. Treat the seed the same as the above. Pkt. 10c.

**Bona Nox** (Good Night, or Evening Glory). Beautiful, large, violet. Pkt. 5c, oz. 15c.

**Kochia Trichophila**. "Summer Cypress." Annual, 3 to 4 feet high. Forms very decorative compact bushes with fine light green foliage, which turns deep red in the fall. Very ornamental for planting as a background or temporary hedge. Sow in spring. Pkt. 10c.

## LOBELIA

Annual, 4 to 6 inches, forming compact, free flowering plants much used for edgings, etc. Sow the seed in February in seed pans of fine, light soil. Do not cover the seed, but sow on the surface and press down firmly with the hand and water with a fine spray. As soon as large enough to be handled, the seedlings may be pricked out into shallow boxes and afterwards transplanted to the open ground.

**Crystal Palace Compacta**. Rich deep blue, dark foliage. The finest dark blue for bedding. Pkt. 10c.

**Emperor William**—Pkt. 10c.

**Linum Grandiflorum Rubrum**. "Scarlet Flax." Annual, 1 to 2 feet high. Very effective for planting in masses in large beds; also for sowing broadcast on waste ground. Pkt. 5c, oz. 25c.

## MARIGOLD (Tagetes)

Extremely showy, 1 to 2 feet high, well adapted to garden culture, bloom profusely through the season.

**French**. A beautiful variety with petals of velvety purple-brown and old gold. Pkt. 5c.

**Eldorado**. Called "The African Marigold." The best tall variety, with large, very double blossoms. Mixed. Pkt. 10c.

## MIGNONETTE

**Machet**. A hardy annual growing 6 to 12 inches high and bearing pyramid shaped flower spikes, made up of thickly set flowers, which are exceedingly fragrant. Grows easily from seed. Pkt. 10c.

## MOURNING BRIDE (Scabiosa)

A class of beautiful, hardy annuals, from one to two feet high; valuable for cutting, as they remain a long time in bloom and do not droop easily.

Satisfied Customers Sustain Our Reputation.

## MORNING GLORIES

**Imperialis.** "Imperial Japanese Morning Glory." Annual, 15 to 20 feet. Flowers large, varying in color from pure white to carmine, through blues and purples of every shade to almost black. Pkt. 10c.

## NASTURTIUM

Tender annual, in two distinct classes—Dwarf and Tall Climbing.

**Tall or Climbing Varieties.** Of quick growth, covering a wall, hedge or trellis in a short time. The brilliant blossoms almost cover the plant from top to bottom. Pkt. 5c, oz. 10c.

**Dwarf Varieties.** The plant forms a small, round bush twelve to sixteen inches high. The foliage is pretty and the flowers very beautiful and contained in a great number of colors and tints. Sow the seed where it is to remain late in the spring after danger of frost is over. It is seldom necessary to thin the young plants, as they will bear standing close together. Pkt. 5c.

**Nemophila Insignis.** Baby Blue Eyes. A California native of great merit for sowing broadcast in shrubbery or in bulb beds. Pkt. 5c, oz. 20c, lb. \$2.00.

**Nicotiana Affinis.** New hybrids. Pkt. 10c.

## PANSY

Pansies are without doubt the most popular of all plants, and are too well known to require any description, as they are favorites with all. For spring flowering the seed should be sown in autumn and protected during the winter. We carry a splendid variety of these seeds. Pkts. 10c to 25c. Giant Mastodon, 25c.

## PENTSTEMON

One of our best flowers for the hardy perennial border; grows two feet high; flowers the first season from seed, and blossoms freely. Pentstemon sends up spikes of bright-colored and spotted flowers somewhat like the Foxglove, but in a great variety of shades and colors. A decidedly beautiful and satisfactory flower. Mixed. Pkt. 10.

## PETUNIAS

Few plants equal the Petunia; easily cultivated, and only requiring sunny position, they grow as easily as weeds and furnish a glorious succession of bloom of almost endless variety. Seed of the Double and Giant-flowered Petunia is made expensive by the great amount of labor involved in hand-fertilizing, and it is well to handle seed and tiny seedlings with some care. Fine mixed. Pkt. 5c.

**Petunia Fringed** large flowered double; quality unsurpassed. Pkt. 25c.

**Petunia Giants of California.** A superb strain of single large flowered giants, ruffled and fringed. Pkt. 25c.

## PHLOX

In great variety of rich colors, probably the most brilliant of all annuals. Fine for bedding, making a dazzling show throughout the entire season. Also a great variety of perennial sorts.

**Phlox Drummondii.** A hardy annual, growing from six inches to one foot high and bearing beautiful, soft-petaled, and brilliantly colored flowers all spring and summer. Fine for bedding and massing. Sow seed in the early fall for early flowers. Pkt. 10c.

## PLATYCODON

(Chinese Bell Flower)

One of the best hardy perennials, producing very showy flowers the whole season. They form large clumps, and are excellent for planting in permanent borders or among shrubbery; easily raised from seed, which begins blooming in August if sown outdoors in April.

**Grandiflorum.** Large steel-blue flowers. Pkt. 5s, ¼ oz. 25c.

## POPPY

No other flower so bold and brilliant has the same grace of stem, airiness of poise and delicacy of tissue. For beds and borders with a background of green there is nothing finer; and they are beautiful for cutting. We have them in Iceland, Shirley and all the best sorts, single, double, and in mixed or separate colors. Pkt. 10c.

**New Giant Oriental Poppies.** Among hardy perennials these hold an unrivaled position for gorgeous effectiveness in gardens and hardy borders; height 2 to 3 feet; flowers immense, often 6 inches across. Colors, salmon, fiery-scarlet, rose, lilac and copper color, pink-blotched, purple, blood-red blotched, black, orange, etc. Mixed colors. Pkt. 10c.

**Giant Shirley.** A great advance in single-flowering annual poppies. The flowers are immense, often measuring 3 to 5 inches across, the petals are fluted and crinkled and in the sunlight appear like rumpled satin.

**Poppy "Carnation."** A tall class of double flowered Poppies. Pkt. 5c, oz. 20c.

## PORTULACA

Low-growing or creeping, tender annual, six to eight inches high and bearing glossy, cup-shaped blossoms in very brilliant and gorgeous foliage. The foliage and stems are thick. The seed germinates slowly and should be started under glass. The plants require a sunny location and do best on rather dry ground.

**Single.** Large flowering, mixed. Pkt. 10c.

**Double.** Large flowering, mixed. Pkt. 10c.

## PRIMULA (Primrose)

The charming and beautiful Chinese Fringed Primrose and obconica varieties are indispensable for winter or spring decorations in the home or conservatory.

**Primula Malacoides.** A new Hybrid Primula which has become immensely popular on account of its hardy nature and free flowering, growing in habit similar to Obconica, but is considered finer, of light lilac to pure white in color. Pkt. 25c.

**Obconica Fimbriata.** A fringed variety of the above, the flukes being as finely fringed as the Chinese Fringed Primrose. Pkt. 25c.

## SALPIGLOSSIS

**New Emperor.** This new variety forms only one leading stem which bears on its summit a bouquet of the most beautiful flowers, every one of them richly veined with gold, and much larger even than those of the grandiflora type. Pkt. 10c.

## SALVIA

Very ornamental plants, 2 feet high, producing tall spikes of gay flowers. Sow early in the house, or late spring where they are to grow, and transplant 2 feet apart. Fine for hedges.

**Splendens.** Splendid scarlet. Pkt. 10c.

## SHASTA DAISY SEED

We have a fine lot of clean, plump seed, saved from the best flowers only.

**Alaska.** Flowers very large, pure white, on long stiff stems. Pkt. 10c.

## SCHIZANTHUS

**Schizanthus.** An easily grown plant, bearing quantities of gay, butterfly-like flowers, beautifully marked and spotted; closely resembling some species of Orchids. For winter blooming in pots the Schizanthus is one of the most desirable of all flowers.

**Schizanthus Wisetonensis.** An improved strain, excellent for pot culture and partial shade. Pkt. 10c.

## STOCKS

Annuals, producing splendid spikes of very rich and beautiful flowers of delightful fragrance.

Our Garden Tools Are the Best Quality Only.



**Beauty of Nice. Finest Mixed.** Very double. One of the finest stocks in cultivation. Pkt. 10c.

**Giant Perfection, Finest Mixed.** Splendid variety of pyramidal growth with long spikes of beautiful large double flowers. Pkt. 10c.

**Thunbergia, or Black-Eyed Susan.** A hardy annual climber, growing about four feet long, and valuable for low fences or hanging baskets. Prefers a sunny situation. Blossoms are buff, orange or white, with dark centers. Mixed. Pkt. 5c.

## SWEET PEAS

We carry a large assortment of the best varieties of both Summer Blooming and Winter Blooming types. Extra choice selected seed in all colors, large flowers and long stems. Pkt. 10c.

### EARLY FLOWERING LONG SEASON SPENCER SWEET PEAS

There is no doubt but that this new type of Sweet Pea fills a distinct want. Seed planted September will bloom about Christmas, and if planted in October, they will bloom during January and on into summer, if you do not let the flowers go to seed on the vines. In Southern California they can be planted up to January and still bloom ahead of the Summer varieties.

For best results, spade up the ground to the depth of eighteen inches and fertilize well. After this is done, dig a trench about a foot wide and five inches deep, planting the seed in the bottom, covering not more than an inch. This gives you a chance to draw the earth toward the plants after they are up, but do this gradually, or you will smother your plants.

We buy only the highest quality of seed from the best growers on this coast, and as California raises by far the best Sweet Peas in the U. S. our seed is therefore as good as can be obtained anywhere. 10c pkt., 60c oz.

**Early Asta Ohn.** Soft pinkish lavender self.

**Early Cream.** Clear cream, large flowers.

**Early Helen Lewis.** Bright orange pink.

**Early Mrs. Skaach.** Fine rose pink.

**Early Red Orchid.** The favorite Xmas red.

**Early Wedgwood.** Bright silvery blue.

**Early White Orchid.** Large pure white flowers.

**Early Yarrowa.** Bright rose pink with light wings.

**Early Choice Mixed.** All colors. 10c pkt., 50c oz.

### SUMMER SPENCER SWEET PEAS

The Spencer type of Sweet Peas, is the long stemmed, large flowering variety, many of them having fluted edges and from two to four flowers to the stem.

The summer varieties which we have listed below, should be planted in the late fall or early spring, and they will begin blooming about March or April.

Plant the same as the Early Flowering Spencer. 10c pkt., 35c oz.

**Constance Hinton.** Probably the largest white Spencer; slight tint of pink when young.

**Asta Ohn.** Soft, pinkish lavender self. Very large and wavy.

**Frimrose Spencer.** Clear primrose, large and wavy, white seeded.

**Countess Spencer.** The original giant flowered Spencer. Clear pink.

**Margaret Atlee.** Most beautiful deep cream pink Sweet Pea. Color warm salmon pink, perfectly suffused over cream ground.

**New Miriam Beaver.** Soft shell pink and salmon.

**Helen Lewis.** Orange-pink, with bright orange standard.

**Stirling Stent.** Metallic salmon.

**Fiery Cross.** Orange cerise.

**King Edward Spencer.** Best crimson red Spencer.

**Othello Spencer.** Deep, rich maroon, very dark.

**Zephyr.** Silver blue self, large and wavy.

**Wedgwood.** Larger than Zephyr, silver blue.

**Capt. of the Blues.** Clear purplish blue, lighter at edges.

**Royal Purple.** Rich royal purple; strong grower, beautiful flowers.

**Choice Mixed of all colors,** 10c pkt., 30c oz.

### CUPID OR DWARF SWEET PEAS

These make a very pretty edging for a sidewalk or flower bed. The bright, little flowers are borne in great profusion and make a very pleasing sight. 10c pkt., 30c oz.

## VERBENA

A half-hardy trailing perennial of early culture. While it grows readily from division of the root or from cuttings, it does best from seed. It is well known as a bedding or border plant, and the improved large flowered and fragrant strains make it a handsome cut flower for low vases.

**Mammoth Flowered.** Mixed. Pkt. 10c, also White, Red, Pink and Lavender, pkt. 10c.

## VIOLETS

**Viola Odorata.** "Sweet Violet." A favorite fragrant flower, perennial, 6 inches. Succeeding best in a rather shady situation. Sow the seed in winter or early spring, in seed boxes of good loam mixed with some leaf-mould, covering the seed lightly, or they may be sown in a well-prepared bed in a shady situation. Violet seed is slow to germinate. Pkt. 10c.

**Princess of Wales.** The largest violet in cultivation and the one largely used for cutting. Pkt. 10c.

**Vinca, or Madagascar Periwinkle.** A tender perennial, with ornamental foliage, useful for bedding in summer and for the green house in winter. Blooms freely the first year from seed. The trailing blue Vinca or Myrtle never seeds. Rose, crimson, white, etc. Mixed. Pkt. 10c.

**Zinnia Elegans.** A favorite summer flowering annual for beds and borders, thriving best in a sunny situation. The seed can be sown early in spring in seed boxes and transplanted, or later on in the open ground.

**Giant Double,** all colored mixed. Height 1½ to 2 feet; large bloom and many colors. Pkt. 10c.

# BULBS

## For Fall and Winter Planting

### AMARYLLIS

In shape like the Easter Lily. Some are of the most delicately beautiful shades, and others of

the most gorgeous, ranging in color from pure white to the deepest of reds. They are prized alike in pots and in the sunny beds of a garden. The Amaryllis cannot be recommended too highly to the lover of flowers.

All Our Packet Seeds Are Put Up From Bulk.

**Culture.** For open ground. Plant the bulbs in any good garden soil which has plenty of well rotted manure. Select the bed in a fully exposed sunny position. Plant so that the top is even with the surface of the soil. Keep the bed moist at all times. Irrigate; don't sprinkle. They should be planted in the fall and will bloom in July and August.

**Amaryllis Bella Donna.** "Bella Donna Lily." White, delicately shaded with pink or light purple, flowering before the leaves appear, very fragrant and fine for cut flowers, lasting fully a week when cut. 15c each, \$1.50 per doz.

**A. Johnsonii,** striped white on red ground. Extra fine. 15c each, \$1.50 per doz.

## ANEMONE

One of the most showy and beautiful flowers; of neat and compact growth, with elegantly cut foliage and the most brilliantly colored blossoms. It requires but little attention. For best effect plant in masses. Anemones show a wide range of beautiful colors.

**Culture.** Anemones require a rich, loamy soil. Soak the roots in water for six hours previous to planting. This causes them to swell and enables one to distinguish the crown, which is readily discernible by the fibrous points at the top of the root, the bottom being quite smooth. A sunny place is best. Place a slight ridge around the bed so that the plants may be flooded with water.

Plant any time from October to May. They bloom from February to July.

**Single Anemones.** Doz. 30c.

**Double Anemones** Doz. 30c.

## CALLA

**Large White.** According to size, 75c and \$1.00 per doz.

**Yellow Calla, Elliottiana.** This is the finest Calla grown; large, deep, rich golden yellow color. The leaves are spotted with white, habit like our old favorite White Calla. 25c to 35c each.

## FREESIA

**Culture.** Freesias are very easily raised. Plant to the depth of three inches in any good, sandy soil, any time from August to December, and the flowers will appear during January and March.

**Freesia refracta alba.** Per dozen 15c, per 100 \$1.00. Mammoth size 25c per dozen, \$1.75 per 100

**Freesia Purity.** Pure white, 25c dozen.

## GLADIOLUS

**Culture.** As a rule the bulbs should be planted about five or six inches deep in any good, light or sandy garden soil. They flourish best in an open sunny situation and may be planted from January to June. For a succession of bloom from June to September the bulbs of the Gladioli should be planted at intervals of two weeks up to the 1st of June.

**Gladiolus.** Separate colors, 50c to 75c per doz.

## HYACINTH

**Culture.** Plant in open ground, in good, rich soil, from October to January, covering to the depth of from four to six inches. For pot culture plant in five inch pots, leaving one-third of the bulb exposed. Keep in a cool, dark place five or six weeks till the roots are fully developed, then gradually inure to the light.

In glasses, fill the glass with water so as to nearly touch the base of the bulb. A piece of charcoal the size of a walnut, put into the water, will keep it pure and obviate frequent changing. In changing the water, draw the roots lightly through the hand to clean them from any scum which might, if left, induce rot.

Named varieties \$1.50 to \$2.00 per doz. Mixed \$1.75.

## IXIA

For planting in solid masses or for outlining the edges of walks in the bulb garden. There are no bulbous plants more effective or more easily grown than these dainty little flowers. The flowers are arranged in spikes on strong wiry stems and are especially useful for cutting.

**Culture.** Plant them three inches apart and two inches deep in any good garden soil.

**Ixias, finest mixed,** 35c doz., \$1.75 per 100.

## JONQUIL

A species of Narcissus, with very fragrant flowers of easy culture and excellent for cutting. The blossoms are produced in clusters and resemble Daffodils, but are smaller. Culture same as for Narcissus.

**Single Yellow,** 35c doz.

**Campernelle Yellow,** 50c doz.

## LILIUM

**Culture.** In open ground; dig well and add some rotted manure (except for Auratum) and plant about 4 inches deep. *L. Harrisii* blooms in April and May; *L. Candemum* in May; other varieties in July and August. Price each 15c to 25c.

## NARCISSUS OR DAFFODIL

**Culture.** Narcissi thrive in a light, rich soil, and when possible they should be planted in beds by themselves. After the blooming season water should be withheld, and the bulbs allowed to ripen in the usual manner. The water required to keep other plants alive during the summer months is especially harmful to them. Plant the bulbs four or five inches deep and six to eight inches apart. After a growth of a few inches is attained, give a good liberal mulch of well rotted manure. Plant in October to February. Blooms from February to May.

**Named Varieties.** Price, each, 2 for 15c; doz. 65c to 75c.

## RANUNCULUS

The Ranunculus produces strikingly beautiful flowers of every imaginable shade from bright vermilion to pink, yellow and pure white. The plants are free bloomers, very double and useful for cut flowers. If little care is used a glorious display will follow in the spring. Plant from November to March.

**Culture.** Before planting the roots soak them in water for two or three hours; this causes them to swell to full size. Plant them in a good, rich soil, claws downward, six to eight inches apart each way and cover the roots with two inches of finely sifted soil. Price from 40c doz.

## TULIP

For grand effect as early spring flowers, the Tulips probably head the list of bulbous plants. It was long considered that the growing of Tulips in California was a failure, but the past few years have proven, that accorded proper conditions, they will produce a fine display of blossoms. Experiments with Tulips under favorable conditions have produced flowers with stems fully twenty-four to twenty-eight inches long. The great cause of failure here is that the soils are too heavy. With this knowledge in view the successful cultivation of tulips lies principally in the soil preparation.

**Culture.** Select a half shady plot in the garden and if the soil is not already a very sandy loam excavate to the depth of ten inches, replacing with sandy loam, three parts to one part cow manure rotted and add even to this clean sand, fill to four or five inches above the surrounding ground, level off smoothly and plant the bulbs three or four inches apart and four inches deep. Place a ridge around the edges so that the bed may be flooded as sprinkling is more injurious

Plant Smilo and Cove Your Hills With Verdure.



than beneficial and tends to destroy the blooms when open. Plant any time from October to January.

Single and Double in all colors, white, rose, pink, red yellow, etc. 75c to \$1.00 per doz.

## WATSONIA

Similar to the Gladiolus, even in culture. It grows about 4 feet high and produces a wonderful profusion of pure, white or pink flowers which are in bloom about Easter time. Ready for planting in August. 50c per doz.

## CULTURAL DIRECTIONS

Spring flowering bulbs can be planted from September to December. In planting use only well rotted manure. Fresh manure is injurious to them. When the soil is heavy or stiff place a small quantity of sand or coal ashes at the base of each bulb. A good rule to go by in planting is to cover the bulbs with soil one and a half times their own depth. We carry bulbs as listed and others in their proper season for planting. Conditions beyond our control, however, sometimes delay our import shipment from Holland.

# Insecticides and Fungicides

For all insecticides add parcel post rate to Catalogue prices.

**Formaldehyde.** It is of pronounced efficiency in destroying disease germs affecting both animal and plant life, and is largely used for dipping seed potatoes as a preventative of scab. Use 1 pint to 25 or 30 gallons of water. Pint bottle 40c.

**Carbon Bisulphide.** A liquid used for fumigating stored grains and seeds to kill insects, and also to rid the ground of ants. Quarts 50c, ½ gal. \$1.00, gal. \$1.75.

**Bluestone.** This material is used for making Bordeaux mixture as a spray for plant diseases, in the chicken house, etc. It is also used as a preventive for barley and wheat smut, by soaking the seed in a solution of one pound to five gallons of water for ten minutes. Per lb. 25c. Write for prices on larger quantities.

**"Black Leaf 40."** A solution of nicotine sulphate containing 40% nicotine. The most highly recommended spray for soft bodied sucking insects, such as plant lice, thrips, leaf hoppers, canker and currant worms, cherry slugs, etc. Highly endorsed by the Japanese Farmers' Associations of both Los Angeles and San Diego for use against the green pea Aphid. Mixed with Lead Arsenate and Lime Sulphur it is at one time a remedy for scab, lice and codling moth on a tree.

Undiluted is a poison, but when diluted according to directions it is classed as a "non-poisonous dip" and is non-injurious to wool. "Black Leaf 40" is permitted by the U. S. Government and by State Regulations to be used in official dippings of sheep and cattle for Scabies. Price, small bottles 25c, lb. \$1.00, 2 lbs. \$3.25, 10 lbs. \$13.75.

**Rosin Spray.** This spray is recommended by most horticultural authorities as being the best insecticide for scale insects. It is an improved form of the well-known Rosin Wash, and is far more convenient to handle and on account of its great concentration is more economical. In pounds, 30c, two pounds at 50c, and four pound cans at 85c. Also larger sizes. The pound can makes two and one-half gallons of spray. Can be mailed.

**Lime Sulphur Solution (Rex).** The best combination insecticide and fungicide on the market. A standard remedy for the San Jose and other scales on deciduous fruit trees. A sure remedy for the pear leaf blister mite and the oyster shell bark louse and the best and most effective remedy for Curly Leaf on peach trees. As a fungicide it ranks with the well known Bordeaux Mixture. Price, quart 40c, gallon, 75c.

## TIZIT SPRAY (Powder)

A combined Insecticide and Fungicide for use on Citrus Fruit Trees for the control of Scale Pests, Fungi and Red Spider. Easy to use and not unpleasant to handle.

For the control of Scale Pests spraying should commence any time after the heavy winter rains are over. For Red Spider, apply when the spider is in evidence.

Use 5 lbs. to 100 gallons of water.

Prices, 200 lb. barrels, \$52.00; 100 lb. sack, \$27.00; 50 lb. sack, \$14.00; 25 lb. sack, \$7.50. Small lots 50c per lb.

Write for testimonials and other information.

**Arsenate of Lead.** The most effective of all insecticides for the suppression of leaf eating insects. Use in proportions of 2 to 3 pounds to 50 gallons of water, or 2 to 4 pounds to 100 gallons of water if a weaker solution is desired. You can judge best of the strength to be used by your local conditions and uses. Prices, ½ lb. 35c, lb. 60c.

## BORDEAUX MIXTURE

This year we offer the finest Bordeaux Mixture that has ever been placed on the market. It is manufactured by the Corona Chemical Company who have so successfully placed "Corona Dry" among the growers. It is a very fine powder that mixes perfectly with water and is the ideal spray for practically all plant diseases. It can be used also with great success against gum disease of citrus trees by simply adding sufficient water to make a paste. It is also the first successful dusting powder on the market. We unqualifiedly recommend this product as being the best possible. ½ pound size 35c; 1 pound size 60c. Can be mailed.

**Paris Green.** The old reliable destroyer of all chewing insects, such as potato bugs, codling moth, caterpillars, roaches, etc. The most active poison known for this purpose: 1 lb. \$1.25. Ask for prices in larger quantities. Cannot be mailed.

**Tobacco Dust.** The most economical form to use tobacco as an insecticide, fatal to green and black fly and similar garden pests, by simply dusting over the plants. If dug around the roots will keep away many pests below ground and insure health to the plants. 15c per lb.; if by mail add Parcel Post rates. Ask for price in quantity.

## 3 X Dusting Mixture

This is a combination of arsenate of lead, sulphur, and tobacco dust, which is used as a dust and is very effective against practically all the garden troubles met with in a garden. It will kill chewing insects, aphides, and will cure mildew and other diseases. Use as directed on the package. Very effective and economical. In pound packages, 35c, 5 lb. packages, \$1.50, 10 lb. packages, \$2.50. Cannot be mailed.

## LEMON OIL INSECTICIDE

### Scale Killer

Has been used in the East for a long time by the florists, nurserymen and private gardeners, who recommend it for destroying scale insects,

Inoculate Your Beans, Peas, etc., with Farmogerm.



mealy bug, lice, thrips, etc. It is odorless, non-poisonous, and economical. We are very glad to be able to offer this to the public as we feel certain every user will be highly satisfied.  $\frac{1}{2}$  pint 40c, pint 70c.

**Whale Oil Soap.** Known now as Fish Oil Soap, is an excellent and inexpensive means of killing plant lice and scale insects. Makes a good wash for trees and plants, kills insects and their eggs on the bark. Put up in convenient water-proof packages. Price, 1 lb. 25c. Write for price on larger quantities.

**Hammond's Slug Shot.** A fine powder used either in sprayer or duster. Thoroughly reliable in killing currant worms, potato bugs, cabbage worms, slugs, etc. May be used on all vegetables without danger. Price, 15c per pound.

**Sulpho Tobacco Soap.** A combination insecticide and fungicide, equally good for aphids, mealy bug, red spider, etc. Also good for mildew. Price, 3 oz. bar 10c, 8 oz. bar. 20c.

**Tree Tanglefoot.** For protecting trees against all climbing insects in a simple, economical and effective way, use Tree Tanglefoot. One application will remain sticky on the trees for three months even when fully exposed to the weather. A band 1-16 of an inch thick cannot be crossed. Price, 1 lb. 60c.

**Sulphur** (finest resublimed). Use no other if you wish results; prevents and cures mildew on peas, roses, grapes, etc. Per lb. 10c. Write for quantity price.

## Squirrel and Gopher Poison

**Gopher-Go (Poison Grain).** Very popular because it is easy to apply and does the work. Drop some grain in the gopher run early in the morning when the hole is open. Do not disturb the opening. In a few minutes it will be eaten. If the hole is not closed within  $\frac{1}{2}$  hour, he is dead; if the hole is closed, try again next morning. Sold in paper packages. 10 oz. 35c, 22 oz. 60c, 3  $\frac{1}{2}$  lbs. \$1.60, 10  $\frac{1}{2}$  lbs. \$3.00.

## REX LIME AND SULPHUR SOLUTION

### When and How to Use It

In the application of Rex Lime and Sulphur Solution in the citrus orchards for the control of Red Spider, Black Scale or Withertip we advise using the solution in the proportion of one gallon to forty gallons of water. However if the temperature is above 80° Fahrenheit we would advise using the solution in the proportion of one gallon to fifty gallons of water and it is never advisable to make the application during the middle or hottest part of the day.

#### RED SPIDER

In combating this pest, sulphur in all its forms has been used. Rex Lime and Sulphur has been the latest innovation in the citrus orchard with the most wonderful success. In the proportion of one gallon to forty parts of water, complete extermination of Red Spider has been accomplished and also the control of the same for that season.

#### BLACK SCALE

To combat this pest, in former years it was necessary to fumigate and a fumigator would not even then guarantee more than seventy-five per cent efficiency and then fumigation is very expensive. In experiments conducted in orchards that have been sprayed with Rex Lime and Sulphur Solution, the Red Spider has not only been destroyed but the Black Scale also.

#### "CURLY LEAF"

This disease particularly effects peach trees and can be completely eradicated by the application during the dormant season, of Rex Lime and Sulphur Solution in the proportion of one part Lime and Sulphur Solution to eleven parts of water. Three applications should be made commencing in January to get the best results. Intelligent spraying insures profits and saves loss. Quart bottles 30c, gallons 75c. Cannot be mailed. Do it NOW.

## SHERWIN-WILLIAMS DRY LIME-SULFUR

For many years growers have been using liquid Lime Sulphur Solution, and there is no question whatever regarding its efficiency as a spraying material. It is a conceded fact, however, that the use of liquid Lime Sulphur Solution carries with it many disadvantages. For instance: it weighs approximately six hundred pounds to the barrel; it is very disagreeable to handle; there is considerable waste when using it, and it cannot be carried over safely on account of leakage.

Up to this time insecticide manufacturers have never been successful in their efforts to produce an ACTUAL dry powdered Lime Sulphur Solution.

After some years of research work, our chemists have developed the only actual Dry Lime Sulphur on the market. It is not a substitute for Lime Sulphur Solution, but it is the actual material in dry powdered form. It is safe, therefore, for us to claim that our material is not a substitute for Lime Sulphur Solution, but an actual Lime Sulphur in dry powdered form which possesses all the advantages of Lime Sulphur Solution with none of its disadvantages.

Dry Lime-Sulfur is very simple to use. It goes into solution in water almost instantly and spraying operations can be started immediately. It is simply a case of dumping the desired amount of powder in the spray tank, filling the tank with water and spraying operations start.

#### WHY TO USE DRY LIME-SULFUR

- 1—BECAUSE S-W Dry Lime-Sulfur is put up in neatly labeled air-tight containers and is very cleanly and safe to handle, while on the other hand Lime Sulphur Solution is disagreeable to use and very inconvenient to handle on account of the excessive weight.
- 2—BECAUSE S-W Dry Lime-Sulfur does not deteriorate, crystallize or show sediment and will keep for years without losing its effectiveness if the packages are kept sealed.
- 3—BECAUSE there is no leakage where S-W Dry Lime-Sulfur is stored or used.
- 4—BECAUSE there are no barrels to be returned for refund, which eliminates a good deal of trouble and work.
- 5—BECAUSE eighty to one hundred pounds of Dry Lime-Sulfur will produce four hundred to four hundred and fifty gallons of spray for dormant work, while it takes one barrel or six hundred pounds of liquid Lime Sulphur Solution to produce the same effect.
- 6—BECAUSE S-W Dry Lime Sulfur is really cheaper in first cost than liquid Lime Sulphur Solution; therefore, considering its advantages, there is no comparison.
- 7—BECAUSE S-W Dry Lime-Sulfur is a real Lime Sulphur Solution, meeting Government specifications in dry powdered form, and is the material that growers have been looking forward to using for years.
- 8—BECAUSE the grower can carry enough S-W Dry Lime-Sulfur in a buggy or auto to do his work, while it requires a truck or team and wagon to haul the heavy cumbersome barrels of liquid Lime Sulphur Solution.

Remember Dry Lime-Sulfur can be employed for the same work for which you have been using Lime Sulphur Solution. Ask for directions.

Prices: 1 lb. 35c, 5 lbs. \$1.50, 10 lbs. \$2.50, 25 lbs. \$3.75, 50 lbs. \$6.00.

Dry Lime and Sulphur is endorsed by the Horticultural Commissioners of San Diego County.

Not How Much, But How Good.



# Stock & Poultry Supplies

We carry in stock a full line of Conkey's, Hess & Clark's and Lee's Poultry Remedies and Stock Tonics.

Dr. Hess' Instant Louse Killed, 1 lb. size....	.30
Dr. Hess' Poultry Panacea, 1½ lb. size.....	.30
Dr. Hess' Poultry Panacea, 3 lb. size.....	.60
Dr. Hess' Dip and Disinfectant, 12 oz. bottle..	.40
Dr. Hess Dip and Disinfectant, ½ gal. can...	1.00
Dr. Hess Dip and Disinfectant, 1 gal. can....	1.75
Lees Lice Killer, 1 quarts.....	.65
Lee's Lice Killer, 2 quarts.....	1.00
Lee's Lice Germozone, 4 oz.....	.40
Lee's Lice Germozone, 12 oz.....	.75
Lee's Lice Killer, 32 oz.....	1.50
Lee's Louse Powder, small.....	.30
Lee's Lice Powder, large.....	.60

Conkey's Lice Powder in 15c, 30c and 60c sizes.

Conkey's Poultry Tonic, 25c and 60c sizes.

Conkeys Roup Remedy, Cholera Remedy, Gap Remedy, Limber Neck Remedy in 40c and 60c sizes.

Conkey's Head Lice Ointment, 15c size.

Spratt's Dog Cakes, 35c Cartons, 5 lb. bag 75c, 25 lb. bag, \$3.10.

Spratt's Puppy Cages, 35c cartons.

Also Spratt's Mange Remedy, Tonic and Condition Tablets, Alternative Cooling Tablets, etc.

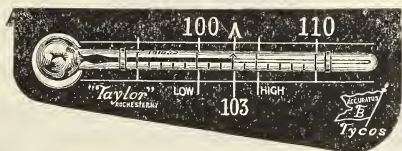
## CARBOLA

**Use It Instead of Whitewash  
Put On With a Brush or Spray**

A snow white cold water paint that will not blister, flake or peel off, combined with a germicide 20 times stronger than carbolic acid, but neither caustic nor poisonous.

Particularly good for use in **Stables, Cow Barns, Chicken Coops, Dairies, Hog Pens, Creameries, Cellars, Factories, Outbuildings.** Pkg. 30c and \$1.25.

## INCUBATOR AND BROODER THERMOMETERS



Many persons using Incubators and Brooders fail to understand the importance of having a thoroughly tested and reliable thermometer. Many a fine hatch is lost, and many a fine brood of chicks killed by using a poor thermometer. Use great care in purchasing a perfect thermometer. Our thermometers are thoroughly tested and accurate.

Certified Incubator Thermometers, \$1.50.

## TYCOS HYGROMETER



**Moisture Requirements.** The amount of moisture required, during the period of incubation, varies from 65 per cent to 53 per cent. For the convenience of our friends and patrons we give the following table of the percentage of moisture best adapted to each week of incubation:

First week there should be about 65 per cent of moisture present.

Second week there should be about 60 per cent of moisture present.

Third week there should be about 55 per cent of moisture present.

At the time of hatching about 50 per cent of moisture. Price, \$2.00, postpaid.

## LEG BANDS FOR POULTRY

**Spir-ol Leg Bands** are made in six colors and all sizes, and are put on and taken off like a key ring. Can't drop off. Colors are black, white, red, yellow, blue, green, purple, light blue, maroon and pink. In ordering please state color wanted, also name of breed, Leghorn, Rocks, Rhode Island Reds or Turkeys. It enables us to fill the order satisfactorily. Prices:

12 Bands for.....	.15 postpaid
25 Bands for.....	.25 postpaid
50 Bands for.....	.50 postpaid
100 Bands for.....	.85 postpaid
500 Bands for.....	4.00 postpaid
1000 Bands for.....	7.50 postpaid

Spir-ol Band for Chick, Bantam and Pigeon size as follows: 12 for 15c; 25 for 25c; 50 for 40c; 100 for 65c; 500 for \$3.00; 1000 for \$5.25. These bands come in the same colors as given above for Poultry bands.

**Flat Aluminum Leg Bands.** These bands fit any variety of fowls.

Price: 12 for 15c; 25 for 30c; 50 for 50c; 100 for 75c. Postpaid.

## DON'TS

Don't send us an order and neglect to write legibly your full name and address. We often receive them with improper forwarding directions, without name, street number, etc. This causes delay in filling your order.

Don't you know that a few hours' work in your garden each day will benefit you physically and mentally? It is a diversion for your thoughts from the sterner side of life.

Don't overlook the fact that plant life is akin to animal, in that it requires food, and in proportion as its ration is well-balanced, so in proportion will it give results.

Plant Sweet Peas in September for Xmas Flowers.

# How to Grow Mushrooms

By J. H. Meyers

Fully realizing the hopes that have been blasted in unsuccessful attempts at mushroom growing, this condensed treatise on the subject has been written as the result of actual experience in Southern California, and the writer asserts with confidence that anyone may enjoy equal success by following these notes carefully.

The culture of a fungus is necessarily a delicate operation and each step must be taken with care. It does not follow that the process requires any annoying amount of attention—but a degree of accuracy must be observed at the proper times, which will surely be rewarded by a fine crop.

The three essentials in growing mushrooms successfully are heat, water and ventilation.

The majority of failures in mushroom culture are the result of giving the beds too much water.

Owing to the dryness of the air from July to September it is not recommended that anyone try to raise mushrooms in those months, but it is well to begin the preparation of the bed in September.

## LOCATION OF BED

The location of a mushroom bed is preferably in a cellar, free from strong air currents and closed to everyone except the person who is in charge. The mushroom cellar should be dark, and if possible lighted when necessary with an electric light, which will not raise the temperature as will a lamp or the admission of sunlight.

## PREPARING THE MANURE

This is best done in an open shed, which will keep off the strong heat of the sun and the winds and rain. The manure selected should be well rotted and contain not too much straw. Place it in a pile three or four feet deep, taking care that all parts are slightly dampened while making the pile. Dampening does not mean soaking with water, which would defeat the object of this process. Tramp the pile down firmly to prevent violent heating, and should the temperature rise to 125° F. toss the manure about to admit the air and rebuild with the inner part of the pile on the outside. See that all dry parts are dampened by using a sprinkling can, as the use of hose will invariably make it too wet.

It may be necessary to repeat this operation three or four times, at least until the temperature declines to about 100° or 110°, and the manure has an oily feeling in the hand. It is then ready for the bed.

## PREPARING THE BED

The bed should be built of a depth to suit the time and season of planting; the colder the weather, the deeper the bed. In early spring a bed 7 or 8 inches deep is quite enough, but in fall and winter, it should be from 10 to 14 inches deep, according to the weather. This

will have to be judged by the grower himself, to suit his local conditions. Should the bed be flat on a floor or on a shelf, shake out the manure, putting the straw part in the bottom and the fine part on the top. Tramp or beat it down firmly.

In three or four days the temperature should rise to between 100° and 120° F., but should it develop a greater heat tear up the bed and rebuild it. When the temperature declines to 90° F. it is ready for spawning.

## SPAWNING THE BED

Always use the hand, not a dibber, for spawning the bed, because a dibber is liable to leave a hole underneath the spawn when it is inserted. Insert the hand and raise the manure up so that the piece of spawn, which should be about as large as a hazel nut will be about an inch beneath the top of the bed; then press the manure down firmly around the spawn. Place the spawn about 10 to 12 inches apart each way, and always press the bed down firmly after putting it in. After spawning a bed never water it until after it has cased, which will be in ten days from the time of spawning.

## CASING THE BED

In casing a bed the better the soil, the better the mushrooms will be. Sandy loam is always preferred. The loam should be in a moist condition, free from clods, sticks, and stones, so that it may be spread on the bed evenly. Use a casing from 1 inch to 1½ inches thick, which should be pressed down firmly. From this time on the bed should be kept moist but not wet. When the little mushrooms will begin to come up the bed will need more water. Mushrooms will begin to appear in from six to eight weeks from the time of spawning.

Should you wish to ridge a bed follow the above directions as nearly as possible, only build the bed about 3 ft. wide and from 2 to 2½ ft. high, placing two lines of spawn in it on each side, one line about 6 or 8 inches from the bottom and the other a foot above the first.

## A FEW DON'T'S

Don't use a hose on the bed; mushrooms won't grow in a mud puddle.

Don't let the air get dry; the mushrooms will crack open.

Don't let the air circulate too freely; a strong current of air will cause them to fog off, Don't walk on the bed; the weight will break the mycelium while it is young and tender.

Don't dig into the bed every few days to see if anything is growing; you are only killing a part of the crop.

Don't think mushrooms will come up on schedule time; they may come up in six weeks or it may be thirteen, just according to the weather.

**Hairy Peruvian Alfalfa Beats Them All.**



# Petaluma & Pioneer Incubators and Brooders

Electric, Hot Air and Hot Water. They are all good but the Electric is a World Beater, being a marvel of accuracy by self-regulation. Can be attached to any electric wire of the ordinary voltage for house lighting purposes. When once properly started it is absolutely self-regulating and gives no further trouble, and the cost of running is ridiculously small.

The Petaluma Hot Air Machine is the most economical Incubator on the market, using less oil than any other, is also self-regulating.

## PRICE LIST INCUBATORS, ELECTRIC AND HOT AIR

F. O. B. San Diego, Cal.

One Hundred and Twenty-six Egg—

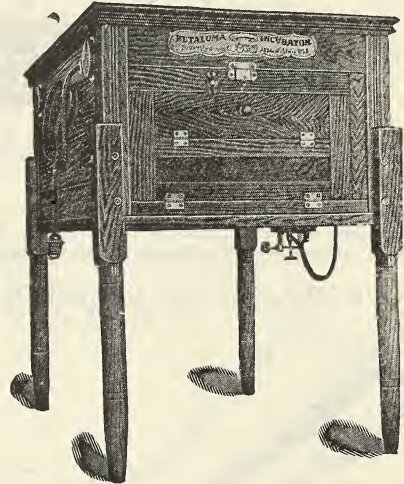
Electric .....\$28.50; Hot Air.....\$26.00

Two Hundred and Fifty-two Egg—

Electric ..... 39.00; Hot Air..... 36.50

Five Hundred and Four Egg—

Electric ..... 67.00; Hot Air..... 62.00



## PIONEER ELECTRIC HOT WATER INCUBATORS

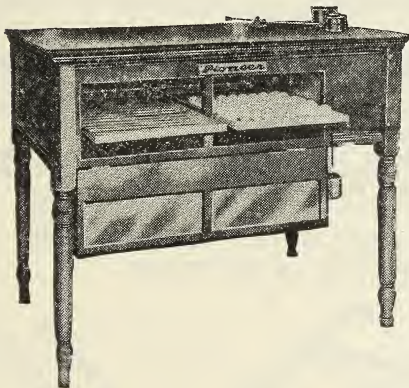
The Pioneer Electric is an up to date, well built and easy Incubator to handle. The system of heating is simple and good, being by means of a 300 Watt "Hot Point" soldered into a specially constructed boiler, the point being surrounded by the water. The water as it becomes heated circulates through the pipes over the eggs, the temperature being automatically regulated by the thermostadt. This Incubator is a proven success and is built in the following sizes:

135 Egg Electric, F. O. B. San Diego.....\$33.00

270 Egg Electric, F. O. B. San Diego..... 43.00

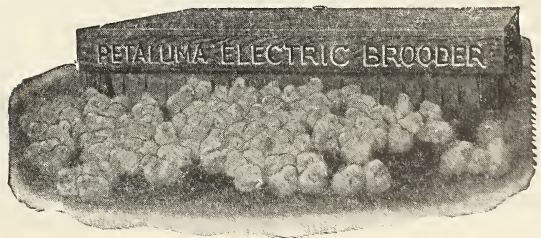
540 Egg Electric, F. O. B. San Diego..... 68.00

Oil Burners, \$1.00 each less.



Brooders, Indoor and Out-of-Doors, ranging from 100 to 500 Chicks. Prices, \$13.00 to \$29.00.

Petaluma Electric Incubators and Brooders produce chicks of superior quality at a small expense and at comparatively no trouble to the operator. Simple to operate, no fuss, no dirty lamps to fill. Better, bigger and stranger chicks at less expense and no worry.



Use Conkey's Reliable Poultry Remedies.

# Garden Tools

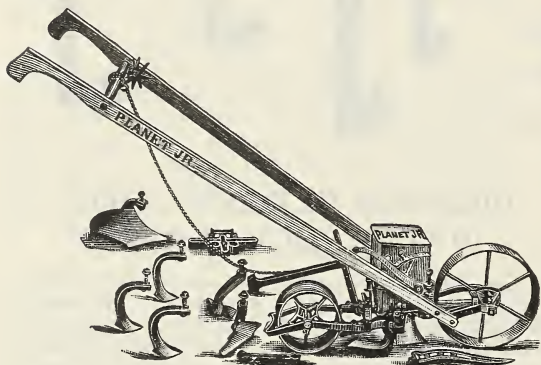
We carry at all times a stock of the best Garden Tools, consisting of Hoes, Rakes, Spades, Shovels, Trowels, Spading Forks, Strawberry Forks, Pruning Shears, Lawn Rakes, Garden Hose, Sprinklers, Spray Pumps, etc. Our prices are as low as reliable goods can be sold.

## Planet Jr. Garden Tools

The following list of Planet Jr. Tools is by no means complete, but gives a good general idea of the tools we carry in stock. Should you desire a tool not illustrated here, write, call or phone for a complete Planet Jr. catalogue.

**The New 'PLANET JR.'** Catalogue is the handsomest, best and most instructive book ever issued on a similar subject. Full of little points that bring profit. Full of true and handsome illustrations. We mail it free to any address on application.

### NO. 4 PLANET JR. COMBINED HILL AND DRILL SEEDER, WHEEL HOE, CULTIVATOR AND PLOW



This tool combines, in a single convenient implement, a capital hill-dropping seeder, a continuous row seeder, an admirable single wheel hoe, an excellent furrower, a capital wheel cultivator and a rapid and efficient wheel garden plow. In a word, with a great variety of tools, excellent in design and quality, it is without an equal for easy adjustment, lightness, strength and beauty. It is a practical, every day, time, labor and money saver. It sows in continuous rows with great uniformity, and drops with accuracy in hills, 4, 6, 8, 12 or 24 inches apart.

For use as a cultivator, the drill parts are removed and the tool frame substituted by changing but one bolt; it is then a perfect single wheel hoe, with an admirable variety of tools, and a rapid change frame, with side extension for hoeing both sides of a row at one passage.

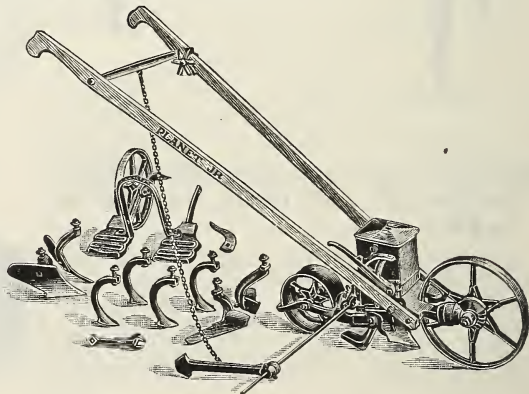
Holds  $2\frac{1}{2}$  Quarts of Seed.. Steel Frame. Price, Complete, \$20.25. Weight, 50 lbs. As a Seeder Only, \$16.25.

### NO. 25 PLANET JR. COMBINED HILL AND DRILL SEEDER AND DOUBLE WHEEL HOE, CULTIVATOR AND PLOW

This new combined machine is intended for gardeners who have a large enough acreage in crops for a Double Wheel Hoe to be used to good advantage, and yet prefer not to buy seeders and wheel hoes separately.

As a seeder it is practically the same as the Planet Jr. No. 4; will sow in drills any thickness or drop in hills 4, 6, 8, 12 or 24 inches apart, and has the same feed, hill dropping mechanism, and automatic device for stopping the feed, and has also the new seed index. It is thoroughly substantial and is accurate in planting all kinds of garden seeds in either hills or drills.

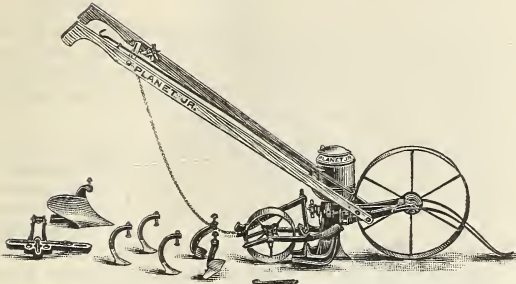
Price \$23.75. Weight, packed, 61 lbs. Holds  $2\frac{1}{2}$  Quarts of Seed.



If Its Anything for the Garden, We Have It.



## NO. 6 PLANET JR. COMBINED HILL AND DRILL SEEDER, WHEEL HOE, CULTIVATOR AND PLOW



As a Wheel Hoe only (No. 36) \$12.00. As a Seeder only, \$23.25.

**What It Will Do.** It drops all garden seeds in hills and sows in drills, with the greatest regularity, in a narrow line, to any exact depth required, covers, rolls down and marks the next row, all at one passage. As a wheel hoe, it hoes, cultivates and plows all garden crops, completing a row at every passage up to 16 inches in width.

The whole combination is most useful. We advise buying the machine complete, as there is a considerable saving by doing so, but we sell the Seeder and the Wheel Hoe separately if desired. The extra attachments shown on later pages will also fit the No. 6 machine complete or the No. 36 Wheel Hoe.

**Holds over 2 Quarts of Seed**

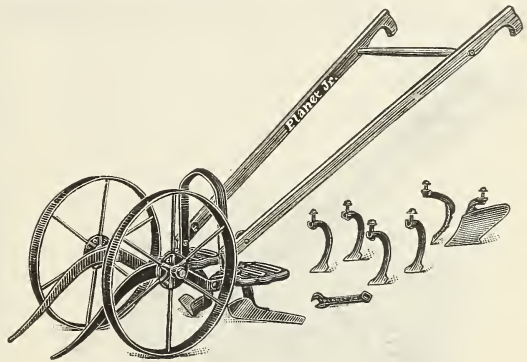
**Price, Complete, \$26.75. Weight, packed, 54 lbs.**

## NO. 12 DOUBLE WHEEL HOE, CULTIVATOR AND PLOW

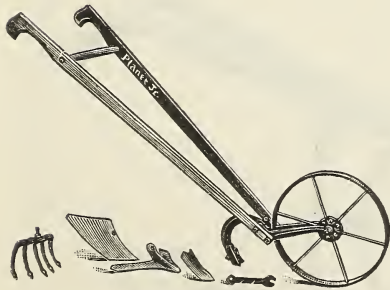
The Planet Jr. Double Wheel Hoes are the greatest cultivating tools in the world for the onion and small sugar beet grower, and also for every grower of garden crops from drilled seed. They do more and do it better and easier than can possibly be done in any other way. The frame is steel.

This tool has one pair plows, one pair hoes, two pairs cultivator teeth and a pair of leaf lifters. The tools sold with No. 12 are what gardeners use most, and the others can be added as wanted.

**Price, \$13.25. Weight, 33 lbs. Steel Frame.**



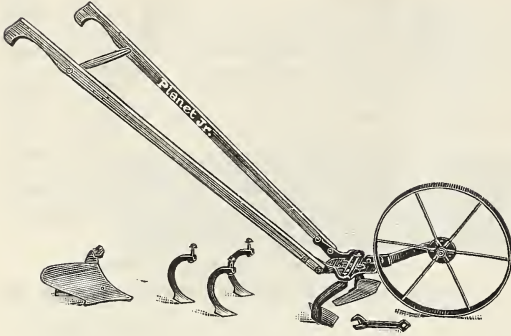
## NO. 19 PLANET JR. SINGLE WHEEL HOE, CULTIVATOR, RAKE AND PLOW



**No. 19. This attractive implement** is especially designed for the farmer's garden work, though it offers to every one with either field or garden a cheap and effective tool for wheel-hoe operations. **The high wheel** makes easy running; the standard is slotted for depth regulation and an adjustable malleable piece carries any of the steels that go with the machine. **The cultivating tooth** does deep work and marks out rows for onion sets, plants, etc. **The sweep** is fine for level work by setting it flat; or by pitching the point downward, it is excellent for hilling crops in rows from 12 inches to 16 inches apart, or for opening furrows, for fertilizers, peas, beans, etc. For wide rows go twice to the row as needed. **The plow** marks out furrows, covers them, and plows to or from the crop as wanted. Use the **five prong** attachment for both deep and shallow work. The great variety and fine shape and quality of the tools makes the implement light running and effective. It is strong, well made, and quickly adjusted. The height of the handles can be changed to suit man or woman, boy or girl. **Price \$7.25.**

**Don't Experiment, Plant Tested Seeds.**

## NO. 17 PLANET JR. SINGLE WHEEL HOE

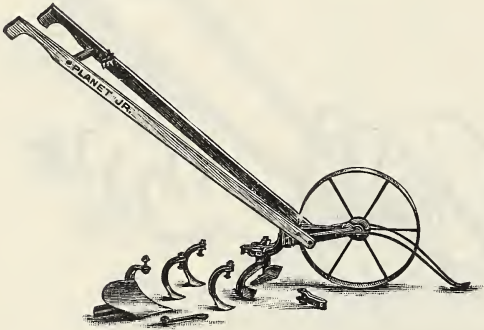


You can do more and better hoeing with it in one day than you can do in three days with a hand hoe. The No. 17 has a pair of 6-inch hoes, a plow and a set of cultivator teeth, an outfit sufficient for most garden work.

**The Plow** is the first attachment used. Plow small plots by going twice in the same furrow. Then for manure, potatoes and extra deep planting, draw furrows by going either once or twice in the row, drawing the first furrow by garden line, the rest with the marker. Then cover with the plow, going a round to the row; let the first furrow be light, the second heavy.

**Price, \$9.75. Weight 24 lbs. Steel Frame.**

## NO. 36 PLANET JR. SINGLE WHEEL HOE, CULTIVATOR AND PLOW



**The Steel Wheel** is high, and while a high wheel is not necessary for hoeing and cultivating, this one will suit many persons who like a high-wheel machine.

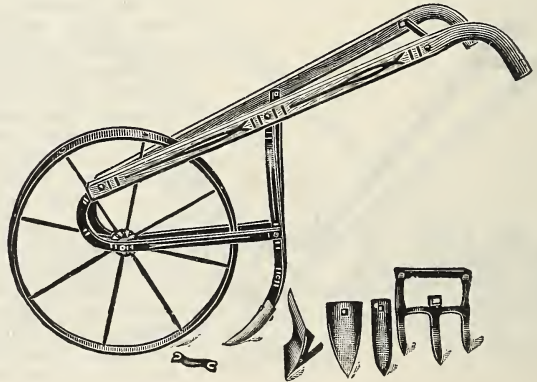
**The Frame** is strong and of a form to enable attachments to be quickly changed. Machine can be run deep or shallow as desired, the adjustment for depth being quickly made by loosening a single bolt.

**Both Sides of the Row** can be hoed at once when plants are small, by means of a frame extension, which is included with each machine.

**Weight, packed, 33 lbs. Price, Complete, \$12.00.**

## SUPERIOR GARDEN PLOW AND CULTIVATOR

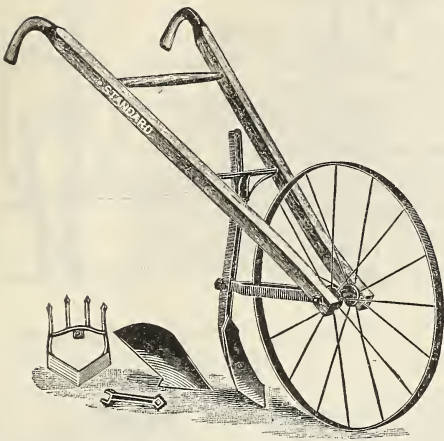
To meet the demand from some sections for a Plow and Cultivator with a higher wheel than those we usually carry, and incidentally at a lower price, we offer the Superior Plow and Cultivator which is equipped with a 24-inch wheel. This plow is so constructed that the draft can be changed to suit different soils. It is fully equipped with shovel, calf tongue, wrench, mouldboard, weeder and cultivator. Price \$5.00.



**Make Your Victory Garden the Best Ever.**



# STANDARD GARDEN TOOLS

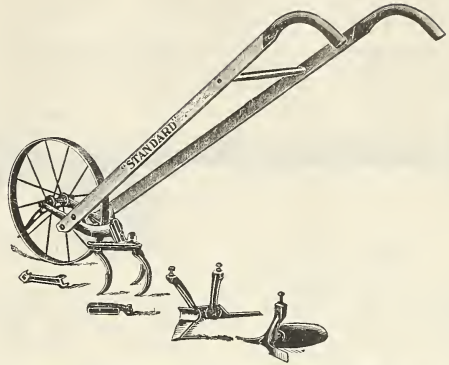


## Single Wheel Cultivator

To build a single-wheel garden tool is one thing, to build a good single-wheel cultivator is another, but to build a single wheel tool that every one of them sold satisfies the customer in all respects is entirely another proposition, and this is exactly what we offer in the No. 20. By loosening one wing nut, without the use of the wrench, the handles are adjustable to suit the height of the operator or to regulate the depth desired to run the attachment. By the peculiar shape of the upright or shank the attachments always set at the same angle whether they are used for deep or shallow work. Has a strong yet light tangent spoke wheel 24 inches in diameter, making the tool run easy and carrying it in perfect balance. Attachments are furnished as shown in above cut: Double end shovel, mouldboard with landside, combined rake and sweep—five tools in all. These are made from steel as hard as the average saw blade, are drawn out sharp, and polished bright and smooth. Price \$5.25. Weight when packed 19 lbs.

## Hill and Drill Seeder and Single Wheel Cultivator

This is a first class combination in every respect—is a hill seeder, a drill seeder and a single wheel cultivator combined in one tool. Will plant seed in hills 4, 6, 8, 12 and 24 inches apart or drill in a continuous row. The hill spacer is very simple, being made entirely of one piece—has no extra parts to get lost. Seeder is changed from hill dropping to drilling by slightly moving one part only. It is only necessary to move one bolt to change from a seeder to a cultivator. No. 12 Standard as a seeder has less parts than any similar tool made. The seed is fed through the plate by a rotary brush which gives a constant steady flow without injury to the seed. To cut off the flow of seeds entirely pull the seed slide out as far as it will come where it will latch, by pressing lightly to the right with foot or hand; a spring will pull it back to position. Shoe is adjustable for depth and entirely open in the rear so the seed falling to the ground are in plain view of the operator. A convenient marker is provided that can be removed or replaced instantly, simply being hooked over a lug on the frame. The entire frame and all parts liable to be broken are of malleable iron. The wheel is 16 inches high with tire 1½ inches wide. Complete instructions for setting up and operating accompany each tool. List price \$18.50. Shipping weight 45 lbs.

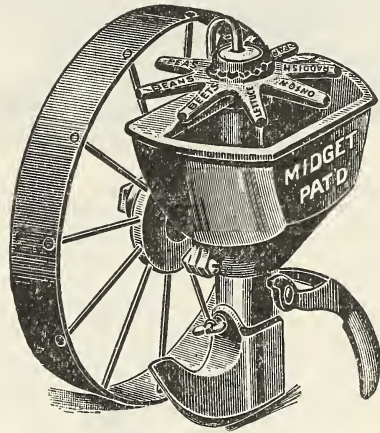


## Single Wheel Cultivator

This is the cultivator from the No. 12 combination and is known as No. 22 when sold separately.

This tool has been provided with a new diamond which is a little larger than the old one and has a long landside. Every care is taken to make this a perfect tool, and we wish to state that no hand garden tool made will do better work than No. 22. List price, \$9.00. Weight when packed 20 lbs.

Equipment: One pair hoes, three shovels, one diamond and one leaf guard.



## MIDGET SEEDER

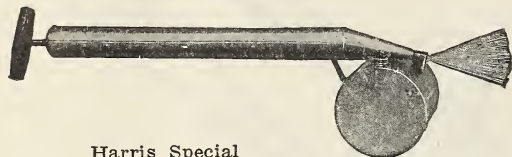
Will attach to any "Standard" Single Wheel Cultivator, or to almost any make of single wheel cultivator having 5½ inches or more space between the shank and wheel. It attaches with one bolt in the same place and same manner as the cultivating tools. Will drill almost any kind of garden seed from the smallest up to peas and beans. While the hopper holds one pint, it will handle and drill out clean a 5c package of seed just as well as a large amount. An index naming several different varieties of seed is in plain view on top and no trouble to adjust. Price \$4.75.

Use Tisit Spray for Your Orchard.

# SPRAY PUMPS

**Midget.** A small sprayer for house use. Will handle disinfectants, etc. Made of heavy tin. Holds one pint. Price 40c.

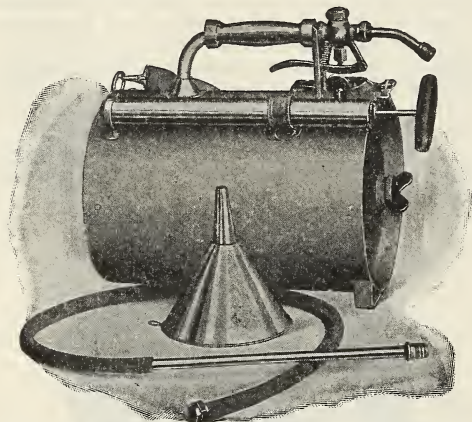
**Harris Special.** A general purpose sprayer for farm, stable or garden uses. Used very extensively for spraying disinfectants, etc. Price, tin, 50c.



Harris Special

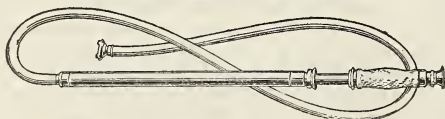
**Lowell Dust Blow.** This is the most popular pump of its type on the market. Will handle Sulphur, Paris Green, Slug Shot and all powdered disinfectants without clogging if the powder is dry. Price 75c.

**Corona Hand Duster.** A powder bellows. The best duster for sulphur, Corona Dry, etc. Each \$2.50.



**Lowell Compressed Air Sprayer.** No waste of liquid, the automatic valve is always closed except when touched lightly with the index finger. Holds three gallons. Fill two-thirds with liquid and pump air into it with all the pressure you can control. It is then ready to operate. There is a rubber extension to reach low and high plants, also a curved rod extension that a man standing can spray the under side of the leaves of small plants. One great merit of the sprayer is that the valve of the pump does not come in contact with the liquid which is the great weakness of other sprayers. Price without extension, \$7.00. Brass tank, \$10.00. Price of curved extension, \$1.00. Weight crated, 20 lbs.

## STANDARD SPRAY PUMP, KNAPSACK AND POTATO ATTACHMENT



**Standard Spray Pump.** For a small orchard or a few trees, use it as a bucket pump. For a large orchard, use an ordinary barrel on a sled or drag, and a long piece of hose. For truck crops, potatoes, etc., use it with Knapsack and Potato Attachment. Brass ball valves, no leather suckers or washers. Sprays the tallest fruit tree from the ground.

Pump \$5.50, with knapsack, \$9.00.

## The "Prize"

### Bucket Sprayer

For Garden and Greenhouse Spraying.

The "Prize" is our lowest priced spray pump, but its usefulness cannot be measured by its cost. It was our aim to make a first-class sprayer for a reasonable price. The many testimonials received from purchasers of this pump are evidence of our success in attaining this result. The "Prize" is "Much in Little." With Bordeaux Nozzle, \$6.75.



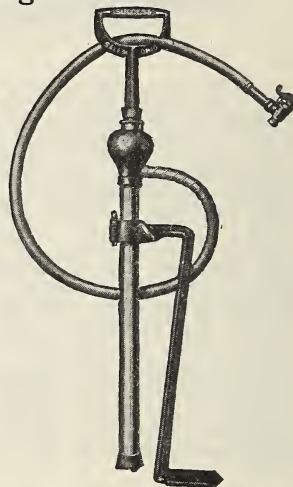
## The "Success" Bucket Sprayer

Fig. 659

The "Success" Spray Pump by its truly excellent qualities is a success, in fact as well as in name. "Nothing succeeds like success." For the garden, greenhouse and small orchard, this pump is indispensable. It is very useful for washing windows and buggies and putting out fires, as well as for whitewashing poultry houses.

The "Success" Pump has become one of the most popular articles in the shelf-hardware trade where it is also a success in drawing and holding customers. Each "Success" Pump sold causes more sales. The NAME "Success" is a REGISTERED TRADE-MARK and is known wherever spray pumps are used.

This pump is fitted with a 3 foot section of Hose and Bordeaux Nozzle. Packed in a cardboard box it makes a compact package which can be sent parcel post. Price \$7.50.



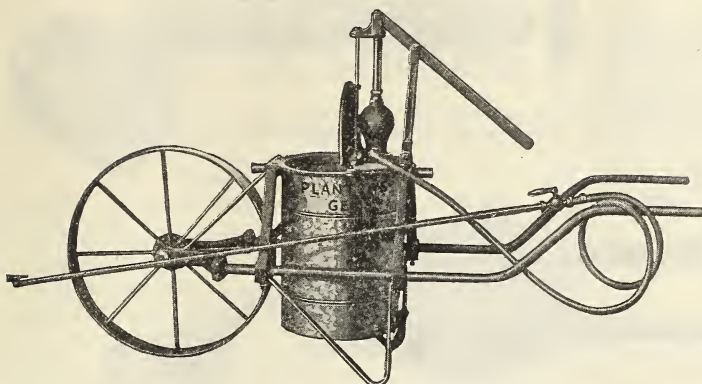
Don't plant seeds of nondescript quality—the best are none too good, if you consider your time, labor and garden space as worth anything. It requires the same amount of time to bring a poor strain to maturity as a good; the satisfaction afforded in the ultimate

Don't let mildew obtain a hold on the foliage of your Roses. It spells certain failure in the obtaining of good, perfect blossoms. Mildew is a fungus disease, spreads rapidly and is superinduced by radical climatic changes, fogs, etc. A simple and effective means of keeping the plants free, is to spray the foliage every week or ten days with a weak lime sulphur solution. Aside from ridding the plants of mildew, it is a specific cure for red spider.

"Results Count"—We Get Them.



## THE "PLANTER'S GEM" SPRAYER



(Patented)

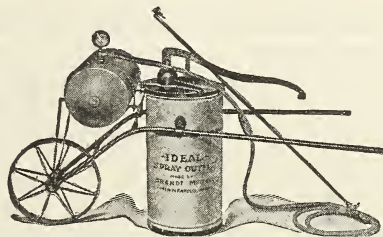
**For Garden and Small Orchard Work.**

This is a spraying outfit of the wheelbarrow type, which fills a want among gardeners and planters for a one-man operated sprayer. Nothing of the kind that has ever been put on the market so completely meets this demand. The outfit is well designed and constructed; convenient for the operator; built for durability, and is as light in weight as is consistent with strength of the assembled parts. All working parts of the "Gem" pump coming in contact with the liquid are brass. The hose and discharge pipe are of sufficient length for spraying small trees. Price \$35.00.

## "IDEAL" SPRAY OUTFIT

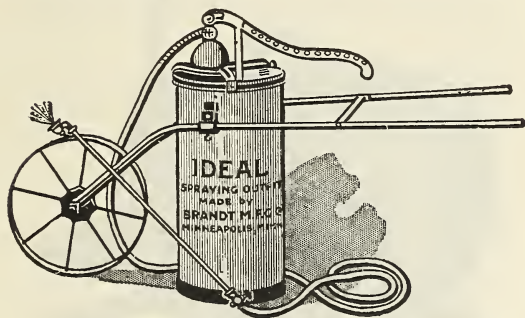
This outfit is light, compact and easy to operate. The tank holds fifteen gallons, is mounted so that the liquid will not slop or spill, and in a way that makes it easy to handle. The pump spreads across the top of the tank and is held firmly in place by a thumb nut. It has the largest air chamber of any spray pump of corresponding size. This enables the operator to keep a uniform pressure at the nozzle.

The pump barrel is 1 3/4 inches in diameter, 7 inches in length. The plunger is made of brass and is self-oiling. The packing is cotton wick, which will resist the action of the chemicals used for spraying and can be tightened without removing from the pump. The valves are bronze balls 5/8 of an inch in diameter, which allows free passage of the liquids and prevents clogging. Both valves are removable. The pump handle is of iron. It is extra long and a pressure of one hundred and fifty pounds can be easily maintained.



Ideal Spray Outfit with compressed air tank. Price \$35.00.

## AMERICAN BEAUTY DUST SPRAYER



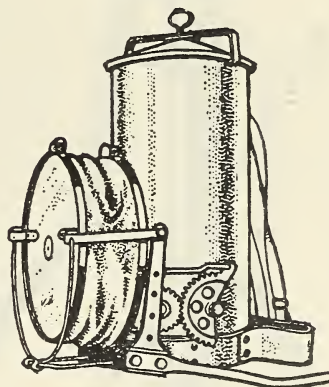
A mechanical agitator keeps the liquids well stirred. A fine strainer at the opening in the suction pipe prevents anything getting into the working parts of the pump. The pump has the following equipment:

- 10 feet, 3/8-inch Pressure Hose;
- 8 feet Pipe Extension, in 2 pieces;
- 1 "Ideal" Nozzle;
- 1 Brass Shut-off Cock;

Shipping Weight, crated, 60 lbs.  
Price, \$28.00.

## Special Notice

Owing to conditions, which may arise, beyond our control, the prices in this catalogue are subject to change without notice. As a rule, and whenever possible, we expect to fill orders at prices listed.



This reliable machine has no equal in the application of dry insecticides and fungicides.

It has a powerful bellows, throwing a cloud 25 feet high; a grinding and sifting device, which grinds and sifts all dusts; an adjustable regulator, accurately governing the quantity of dust discharged, preventing waste of valuable material; applies any kind of dry insecticide, arsenate of lead, Paris green, Dry Bordeaux, sulphur, sulphur-nicotine, hydrated lime.

It is very fast. One man will average 15 acres per day in orchard work.

It kills red spider, aphids, codling moth, caterpillar, tomato worm, corn ear-worm, mildew, etc.

ASK FOR DEMONSTRATION

Price, Standard Size, \$18.00.  
Price, Junior Size, \$16.00.

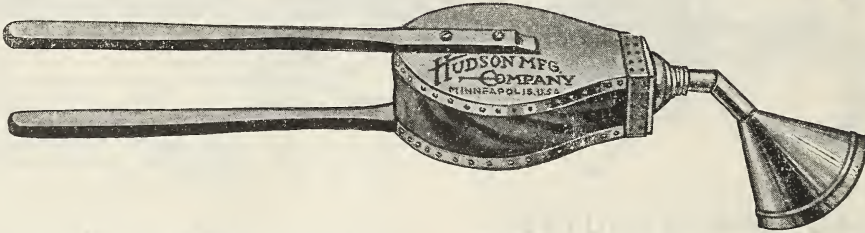
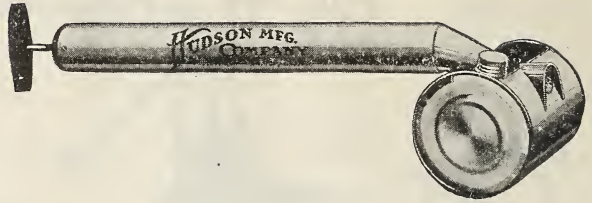
Plant Chicken Lettuce for Your Poultry.

## Hudson Misty Sprayer

(General Purpose)

Our old standby. The best selling quart size sprayer. Made of good stock and carefully tested. The pump passing through the top of the can makes it very strong. By using this construction the air nozzle and spray tube are always in line. Every sprayer a good one and you will have no comebacks. Made of a good grade of tin. Hudson plunger leather. Heavy rod.

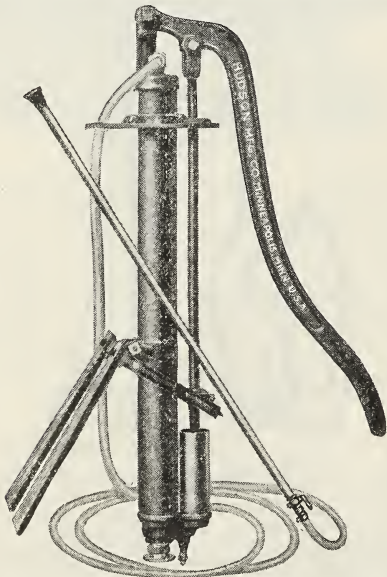
**Tank**—4 inches diameter, 4½ inches long. Lock seamed, no solder. Capacity one full quart. Length over all 21 inches. Price 50c.



## HUDSON BELLOWS GUN

This **Dust Sprayer** is a popular Favorite, and is used throughout the entire United States for dusting Paris Green, Arsenate of Lead, Hellebore, Persian Insect Powder, and in fact, all insecticides in their dry state. It is exceptionally well made, has hardwood head block and handles, basswood sides, fine grade of leather for the bellows. All material used is the best obtainable. An elbow is used to tilt the funnel for getting under the leaves, etc. By unscrewing the funnel the powder is put directly inside of Sprayer and is kept constantly agitated by the action of the bellows, insuring a uniform discharge with each operation. Price \$1.75.

## HUDSON BARREL PUMP



In our No. 4, we have developed a pump that will meet every requirement of a perpendicular Barrel Pump. It is powerful, light and durable and will develop better than 250 pounds pressure with ease. Can be used with either one or two lines of hose. Fittings for two lines of hose are furnished as regular equipment.

**Cylinder**—1¾ inches diameter, 7 inches long; Seamless Brass, 6-inch stroke.

**Plunger**—Wick Packing Type (no leathers); wear can be taken up without removing plunger from cylinder.

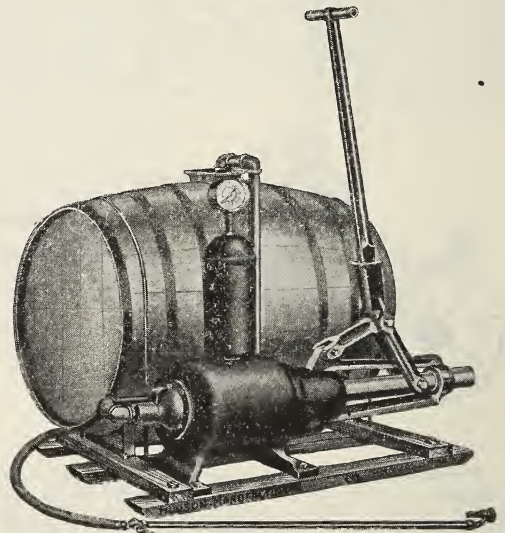
**Air Chamber**—2 inches diameter, 30 inches long, made of high carbon steel, light and strong.

**Valves**—Bronze Balls, both the intake and outlet valves are mounted in one cage and easily removable, fitted with brass intake screen. Pump can be mounted on either head, side or chime of barrel. Extra fittings for mounting pump on head or side of barrel can be furnished with a slight additional cost.

**Chime attachment** will be furnished unless otherwise ordered.

No. 4 Pump only. Price, each, \$17.00.

## HUDSON BULL DOG BARREL OUTFIT



Our regular No. 107 Pump mounted on heavy skids, complete with barrel, hose, agitator, extension, and nozzle—ready for use. Every outfit is carefully tested before crating and must work perfectly before it leaves the factory. Very easy to operate and all parts are accessible. Is well made and will withstand the hardest usage.

Regularly equipped with Pressure Gauge and Air Chamber.

### SPECIFICATIONS

**Skids**—Heavy wood bolted together. Cut out to fit barrel.

**Tank**—First grade hardwood barrel, 52-gallon capacity. Firmly fastened to skids with round iron bands. Will not work loose. Agitator of special swinging type, very effective, operates by a lever from the pump.

**Discharge Equipment**—Fifteen feet Hudson ½-in. spray hose. Eight-foot pipe extension, leakless shut-off and fog nozzle. Price \$64.50.



# Baskets, Stakes, Pots, Moss, Etc.

## PLANT STAKES

Round, Smoothly Turned and Painted Green  
 3 feet, light, per doz., 50c; per 100.....\$ 3.75  
 4 feet, light, per doz., 75c; per 100..... 5.00  
 4 feet, heavy, per doz., \$1.25; per 100.... 8.00  
 5 feet, heavy, per doz., \$1.50; per 100.... 12.00

## BAMBOO STAKES

3 feet, per doz., 20c; per 100.....\$1.50  
 4 feet, per doz., 25c; per 100..... 1.75

Special prices when ordered in larger quantities.

## FLOWER POTS (Packing at Cost)

	Each.	Per doz.
2 inch, 3 for.....	\$0.05	\$0.20
2½ inch, 2 for.....	.05	.25
3 inch, 3 for.....	.10	.35
4 inch.....	.05	.50
5 inch, 2 for.....	.15	.75
6 inch.....	.10	1.00
7 inch.....	.15	1.25
8 inch.....	.15	1.50
9 inch.....	.20	2.00
10 inch.....	.25	2.75
12 inch.....	.60	6.00
14 inch.....	1.25	....

## FLOWER POT SAUCERS (Packing at Cost)

	Each.	Per doz.
4 inch, 3 for.....	\$0.10	\$0.35
5 inch.....	.05	.50
6 inch.....	.05	.60
7 inch.....	.10	.75
8 inch.....	.15	1.00
9 inch.....	.15	1.50
10 inch.....	.20	2.00
12 inch.....	.25	2.50
14 inch.....	.40	4.00

## THE "BOSS" TREE PROTECTOR

Made of Yucca, it is a perfect protection against rabbits, borers, grass-hoppers, etc. Not effected by sun or rain. Ready for immediate use. Is quicker to put on than any other protector. Open grained, allowing free air circulation. Guaranteed to give satisfaction.

### Price List

14 inches long, 7 inches wide....\$1.50 per 100  
 16 inches long, 7 inches wide.... 1.60 per 100  
 18 inches long, 7 inches wide.... 1.70 per 100  
 24 inches long, 7 inches wide.... 1.80 per 100  
 30 inches long, 7 inches wide.... 2.25 per 100

## JAPANESE TUBS

We always carry Japanese tubs for porch plants. 12 inches in diameter, \$1.00 each; 20 inches in diameter, \$2.00 each.

## MOSS

Moss Green. Fine and fresh. Is not stained. The best for hanging baskets. Per pound 16c. Quantity price on application.

## THE EXPAN PROTECTORS

Made of oiled paper, perforated, are water-proof, tough, durable, and easily fastened; do not split or crack; will protect your trees from sunburn, rabbits, squirrels, and tree bores; can be taken off and put on again without injury. Be sure to state the size and kind you want, and then we can fill your order correctly. 18", \$1.25 per 100; 24", \$1.35 per 100.

## WIRE HANGING BASKETS

8 inch.....	\$0.25
10 inch.....	.30
12 inch.....	.40
14 inch.....	.60

**Grafting Wax.** A preparation for healing wounds on trees caused by pruning. Very excellent also for spreading around the graft in grafting propagation. Lb. 25c.

**Budding Cloth.** A cloth treated with rosin and beeswax, useful for all budding and grafting purposes. Put up in neat rolls of ½ square yard and 1 square yard. The prices are respectively, 25c and 50c.

**Raffia.** Best tying material for plants. Pound 60c. Special prices on large quantities.

Write for quantity prices.

## TOO LATE

♦ How often do you think of something ♦  
 ♦ you would like to plant about the place ♦  
 ♦ when it is just too late. How often do you ♦  
 ♦ see some flowers you would like to have ♦  
 ♦ in your own home garden when it is just ♦  
 ♦ too late and you have to wait another ♦  
 ♦ season? Consult this catalogue regularly ♦  
 ♦ and you will be always in time with ♦  
 ♦ flowers to decorate your home and fresh ♦  
 ♦ vegetables for your table. ♦

"Harriseeds Succeed."

## CANNING SCHEDULE

For Scalding, Blanching and Sterilizing of Vegetables by One-Period, Cold-Pack Method.

	Scald or blanch.....	Min.	Min.	Min.	Min.
Tomatoes .....	1 to 3	22	18	15	10
Tomatoes and corn.t. 2, c. 10	90	75	60	45	
Egg plant .....	3	60	45	30	
Corn on cob cut off.....	5	180	90	60	45
Pumpkin .....	5	90	50	40	35
Squash .....	5	90	50	40	35
Hominy .....	5	120	90	60	40
Cabbage or sauerkraut...	5	90	75	60	35
<b>Special vegetables and combinations:</b>					
		Min.	Min.	Min.	Min.
<b>Greens or pot herbs:</b>					
Asparagus .....	5	120	90	50	35
Brussels sprouts .....	5	120	90	50	35
Cauliflower .....	5	120	90	50	35
Pepper cress .....	15	120	90	50	35
<b>Pod vegetables:</b>					
Beans (lima or string)...	5	120	90	60	40
Okra .....	5	120	90	60	40
Peas .....	5	120	90	60	40
<b>Roots and tubers:</b>					
Beets .....	6	90	75	60	35
Carrots .....	6	90	75	60	35
Sweet potatoes .....	6	90	75	60	35
Other roots and tubers, as parsnips and turnips...	6	90	75	60	35
Soups (all kinds).....	no	90	75	60	45

## INSTRUCTIONS FOR CANNING SCHEDULE

Canning schedule following the third column of this page is based upon the one-quart pack and upon freshly picked products.

When processing vegetables do not use over fifteen pounds of pressure.

After processing, remove the containers.

Tighten the tops of jars immediately and stand the containers upside down in a cool place, being careful that no draft strikes the hot jars. Watch for leakage, and screw covers down tighter when necessary. Store in a cool, dry place, not exposed to freezing temperature.

Use band labels for cans, being careful not to let the glue get on the can itself, as it may cause rust.

From time to time, especially in very hot weather, examine jars and cans, making certain that there are no leaks, swellings or other signs of fermentation.

There will be no spoilage if the directions are followed implicitly and the containers are sealed up tight.

Vegetables cannot be kept safely unless they are hermetically sealed. Reserve regular jars for products that cannot be packed in other ways.

As there may be some difficulty in securing cans and jars, dry and keep in other ways everything that need not be canned.

## DO NOT WASTE THE FOOD SUPPLIES

To Preserve Surplus Vegetables—Can Them for Future Use.

(From L. A. Times, May 26, 1917.)

Don't let valuable surplus fruit and vegetables go to waste. Adults and children in a very few hours, with little other home equipment than a wash boiler and cans and jars, can preserve much valuable perishable food for next winter's use. Succulent vegetables and fruits are important to health the year round. See that your table is supplied.

The simple one-period cold-pack method described is that taught by the United States Department of Agriculture for the boys and girls of the canning clubs in the northern and western states. With this method thousands of boys and girls each season put up vast quantities of vegetables. With this method practically every vegetable grown in this section can be canned.

The wash boiler method described below is entirely effective. Those who desire may purchase some-size, water-seal, steam pressure or pressure cooker canning outfit which save time and fuel.

## Preliminary Preparation

Provide a false bottom of wooden lattice work, cross pieces of wood, or coarse wire netting for your clean wash boiler or other large, deep vessel to be used for sterilizing.

Fill the vessel with clean water so that the boiling water will cover the tops of the jars or cans. Begin heating the water so that it will be boiling violently by the time the containers are packed.

See that all cans or jars are in good condition and absolutely clean. Scald them thoroughly. Use new rubber rings and scald them just before putting them on the jars.

## Preparing Vegetables

Start with clean hands, clean utensils and clean, sound, fresh products.

Throw out all vegetables which are withered or unsound. Wash out all grit and dirt. If possible, use only vegetables picked the same day and never can peas or corn picked more than five hours.

Prepare large sized vegetables for blanching.

Prepare beans and greens as for cooking. Be especially careful to remove all foreign plants from the greens.

Blanch vegetables by leaving them from three to five minutes in clean boiling water.

Remove the blanched products from the boiling water and plunge them quickly into cold water, the colder the better. Take them out immediately and let them drain. Don't let them soak in the cold water.

From this point on speed is highly important. The blanched vegetables, which are slightly warm, must not be allowed to remain out of the jars a moment longer than is necessary.

Remove skins when required, and as each article is pared cut it up into proper size and pack directly into the clean, scalded cans or jars.

Pack as solid as possible, being careful not to bruise or mash soft products.

For vegetables fill the containers with boiling hot water, to which a little salt has been added.

Place scalded rubber rings on the glass jars and screw down the tops.

Seal tin cans completely. Watch them for leaks. As the preliminary treatment has taken care of expansion it is not necessary to exhaust the cans.

## Sterilization

Put the jars or cans as soon as possible into boiling water in a wash boiler or into your canning device. Let them process for the time specified in the table, counting from the time the water begins to boil again, or the gauge on the canning outfit registers the proper pressure.

All Our Flower Seeds Are Bought in Bulk and Put Up by Us.



909 SIXTH ST., SAN DIEGO, CAL.

Name .....

Street ..... P. O. Box.....

Post Office ..... R.F.D. No.....

County ..... State .....

Forward Goods by.....

State whether by Mail, Express (and company),  
Freight (and route), Steamer (and line).

Name of Station or Exp. Office.....

## P. O. Money Order.....

Exp. Money Order.....

Draft .....

Cash .....

Stamps -----

Total .....

Date \_\_\_\_\_, 191\_\_\_\_\_

NOTICE—We give no warranty, express or implied, as to description, quality, productiveness or any other matter of any seeds or bulbs we send out and we will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms, they are to be returned at once.

(OVER)





# HOW TO ORDER BY MAIL

## NEW PARCEL POST RATES Size and Weight

A Parcel Post package may weigh from eight ounces to fifty pounds for the first and second zones—with a twenty pound weight limit for third to eighth zones, and must not exceed in size 72 inches in length and girth combined. Small packages of seed or bulbs, weighing 8 oz. or less, one cent for each 2 oz. or fraction, to any office in U. S.

Weight	Local Rates	1st Zone Zone Rate 50 Miles	2nd Zone 50 to 150 Miles	3rd Zone 150 to 300 Miles	4th Zone 300 to 600 Miles	5th Zone 600 to 1000 Miles	6th Zone 1000 to 1400 Miles
1 lb.	\$0.05	\$0.05	Same	\$0.06	\$0.07	\$0.08	\$0.09
2 lbs.	.06	.05		.08	.11	.14	.17
3 lbs.	.06	.07	as	.10	.15	.20	.25
4 lbs.	.07	.07		.12	.19	.26	.33
5 lbs.	.07	.09	1st Zone	.14	.23	.32	.41
6 lbs.	.08	.10		.16	.27	.38	.49
7 lbs.	.08	.11	5c for	.18	.31	.44	.57
8 lbs.	.09	.12		.20	.35	.50	.65
9 lbs.	.09	.13	1st lb.,	.22	.39	.56	.73
10 lbs.	.10	.14		.24	.43	.62	.81
11 lbs.	.10	.15	additional	.26	.47	.68	.89
12 lbs.	.11	.16		.28	.51	.74	.97
13 lbs.	.11	.17	lbs. 1c	.30	.55	.80	1.05
14 lbs.	.12	.18		.32	.59	.86	1.13
15 lbs.	.12	.19	per	.34	.63	.92	1.21
16 lbs.	.13	.20		.36	.67	.98	1.29
17 lbs.	.13	.21	lb. to	.38	.71	1.04	1.37
18 lbs.	.14	.22		.40	.75	1.10	1.45
19 lbs.	.14	.23	50 lbs.	.42	.79	1.16	1.53
20 lbs.	.15	.24		.44	.83	1.22	1.61

7th Zone—1400 to 1800 miles from mailing office, 1st lb. 11c, and additional weights 10c per lb.

8th Zone—Over 1800 miles, 12c lb., any weight up to 20 lbs. This zone includes Mexico and all countries in the Postal Union.

**Your Name and Address** in full should be plainly written on each order. Be sure to give the R. F. D. and box number or street address.

**Cash With Order.**—The proper way is to send remittance in full to cover order and postage. We send orders C. O. D. only if 25% of the amount of order is enclosed. Plants we never send out C.O.D.

**Shipping.**—We will use our best judgment as to the best way of sending orders when specific directions are not given. On large "postpaid" orders it is better to have them go by express, if your town is on a railroad—it is safer. We prepay express charges on merchandise quoted "postpaid". If special directions in shipping are needed, **send them explicitly**, and where express or freight office is different from post-office, so state in your order.

Poisons and liquid insecticides are not mailable. They must be sent by express or freight.

**Our Responsibility.**—There are so many contingencies to be encountered in growing plants from seed and in setting out plants that are dependent on the weather and other conditions over which we have no control, that success in planting is not altogether dependent on the seed or plant. We will send out only seed which we believe will grow and produce the kind of plant and variety represented.

**Non-Warranty.**—Our stock is grown by experienced men, and care is taken to have everything true to name, but we wish it distinctly understood that we give no warranty, expressed or implied, as to description, quality, productiveness or any other matter, of any seeds, plants, or bulbs we send out, and will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms, they must be returned and the money for them will be refunded.

FIELD  
GARDEN AND FLOWER SEEDS  
BULBS AND BEDDING  
PLANTS

---



---

Garden Tools and Hose  
Electric and Hot Water Incubators  
and Brooders  
POULTRY SUPPLIES